Gino J. Lim, Ph.D.

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EDUCATION

Ph.D.	2002	University of Wisconsin – Madison	Industrial Engineering

ACADEMIC APPOINTMENTS

2004 - present	**University of Houston**	Houston, TX
2022 – present	R. Larry and Gerlene (Gerri) R. Snider Endowed Chair	
2025 – present	Chair, Department of Industrial & Systems Engineering	
2011 – 2025	Chair, Department of Industrial Engineering	
2016 – present	Professor, Industrial Engineering,	U of Houston
2010 – 2016	Associate Professor, Industrial Engineering,	U of Houston
2009 – 2016	Member, Research and Development Division South West Technology Center (SWTC),	U of Houston
2008 – present	Hari and Anjali Agrawal Faculty Fellow,	U of Houston
2004 – 2010	Assistant Professor, Industrial Engineering,	U of Houston
2004 – present	Founding Director, Systems Optimization & Computing Laboratory	
2003 – 2003	**University of Wisconsin – Madison** Postdoctoral Fellow, Computer Sciences Dept.	

LEADERSHIP TRAINING

- Cougar Chairs Leadership Academy, University of Houston, January 2015 – January 2016 (Instructor: Dr. Idahlynn Karre)

AWARDS AND HONORS

1. IEOM Distinguished Educator Award, 8th North American Industrial Engineering & Operations Management Conference, Houston, TX, 2023
2. R. Larry and Gerlene (Gerri) R. Snider Endowed Chair, 2022
3. (2^{nd} place) Best Paper Award Competition, Energy Systems Division, ISERC, Orlando, FL, 2018
4. Fellow, Institute of Industrial and Systems Engineering (IISE), 2017
5. Best Paper Award, Energy Systems Division, ISERC, Pittsburgh, PA, 2017
6. Volunteer Service Award at the Meritorious level, INFORMS, Nashville, TN, November 2016
7. Outstanding Asian & Pacific Islander American (APIA) Award, OCA-Greater Houston Chapter, September 19, 2014
8. Outstanding Teacher Award, Cullen College of Engineering, University of Houston, 2010

9. Outstanding Instructor Award, IE Department, University of Houston, 2009
10. Hari and Anjali Agrawal Faculty Fellow, Department of Industrial Engineering, University of Houston, 2008.
11. Outstanding Teacher Award, Cullen College of Engineering, University of Houston, 2007
12. Moving Spirit Award, INFORMS, Pittsburgh, PA, 2006
13. Outstanding Instructor Award, IE Department, University of Houston, 2006
14. Outstanding Instructor Award, IE Department, University of Houston, 2005
15. Travel Award, FASEB/MARC, Tucson, AZ, 2004
16. Travel Grant Award, University of Wisconsin-Madison, 2002-2003
17. Vilas Fellow, University of Wisconsin-Madison, 2002-2003
18. Pierskalla Best Paper Award, INFORMS, San Jose, CA, 2002

PROFESSIONAL SOCIETIES

- The Institute of Operations Research and The Management Sciences (INFORMS)
- Production and Operations Management Society (POMS)
- The Society of Industrial and Applied Mathematics (SIAM)
- American Society for Engineering Education (ASEE)
- Mathematical Programming Society (MPS)
- Institute of Industrial & Systems Engineers (IISE)

EDITORIAL BOARD MEMBER

Computers & Industrial Engineering (CAIE, Area Editor)

Healthcare Analytics (AE)

Drones

Journal of Computer and Communications

Journal of Marine Science and Engineering

UNIVERSITY AND PROFESSIONAL SERVICE

HIGHLIGHTED ACCOMPLISHMENTS as IE Department Chair at U of Houston

- Chair of Industrial Engineering at UH since May 16, 2011
- Increased the faculty size by 250% (from 9 to 24)
- Increased the student enrollment by 500% (from 176 to 930)
- A 300% increase in Master's of IE enrollment: 45 (fall 2011) to 180 (fall 2024)
- A 100% increase in the number of scholarship recipients
- Increased female student enrollment in the department
- Increased the first-time in college (FTIC) 6-year graduation rate of IE students at 100% (compared to the college's 65%).
- Established BS and MS programs in Supply Chain, Logistics, and Transportation.
- Established an MS degree in Project Management.
- Established MIE with a concentration Public Safety Management (PSM) program
- Re-established the *Master's in Engineering Management* program.
- Established joint MIE/MBA program and BSIE/MBA track.
- Established a Bachelor's degree in *Systems Engineering* program.
- Initiated various certificate programs: Data Science in Operations Research, Healthcare Engineering, and Process Safety Engineering.
- Initiated the mentorship program for industrial engineering students to improve the student experience at the U of Houston

SERVICE TO THE PROFESSIONAL / ACADEMIC DISCIPLINE

1. Member, Council of Industrial Engineering Academic Department Heads (CIEADH), 2011 – present.
2. Founding member, IISE Council of Fellows Executive Committee on International Outreach, 2022 – present
3. Chair, Texas Industrial Engineer Life Time Achievement Awards Committee, 2011 – present.
4. Board Member, Senior Chapter of Institute of Industrial and Systems Engineers – Houston Chapter, 2010 – present.
5. Member, Board of Trustees, Institute of Industrial and Systems Engineers (IISE), 2022 – 2025.
6. Member, Board of Directors, Institute of Operations Research and Management Sciences (INFORMS), Jan 2018 – December 2019.
7. INFORMS National Conference Organization
   (1) Member, Sub-committee on INFORMS Analytics Framework, April, 2026 – present
   (2) Co-Chair, Ad Hoc Committee on INFORMS regional conferences, 2025
   (3) Judge, INFORMS Healthcare Society Best Paper Award Review Committee, 2025
   (4) Program Chair, 2017 INFORMS Annual Conference, Houston, Texas.
   (5) Vice President, Subdivisions Council of INFORMS Chapters/Fora, Jan 2018 – December 2019.
   (6) Vice-Chair, INFORMS Subdivisions Council, Jan 2018 – December 2019.

(7) Member, Planning Committee, INFORMS 2015 annual conference, Philadelphia.

(8) Mentor, INFORMS Early Career Professionals' Network, 2016 – present

(9) Blogger, INFORMS Annual Meetings, 2016 – 2019

(10) Co-chair, Invited Sessions, INFORMS 2015 annual conference, Philadelphia.

(11) Member, INFORMS Subdivision Council, Student Chapter Representative, 2010 – 2014

(12) The Seth Bonder Scholarship: The Health Applications Section (HAS) of INFORMS recognizes a promising Ph.D. student worldwide with this prestigious award.

- Chair of the committee: 2007 – 2011
- Committee member, 2005 – 2006

(13) Council member for The Health Applications Section (HAS) of INFORMS: 2006 – 2008

(14) Local organizing committee member for INFORMS Optimization Society Conference, San Antonio, Texas, 2006.

(15) Local organizing committee member for INFORMS Southwest Regional Conference, College Station, Texas, 2008.

(16) Member, Chapters/Fora: 2006 – 2007 and 2014 – 2016

8. Industrial and Systems Engineers (IISE) national conference

(1) Judge, The 2026 IISE/OR Case Hackathon competition, Arlington, TX, 2026.

(2) Member, 2026 IISE Annual Conference Expo Host Committee, 2025 – 2026

(3) Senior Vice-President – International Operations, 2022 – 2025

(4) Member, IISE Award Nomination Committee, 2022 – 2025

(5) Judge, Faculty Advisor Awards, 2022 – 2023

(6) Judge, the Outstanding Young Investigator Award, the IISE Energy Systems Division, 2018

(7) Past Chair, Conference Oversight Committee, CIEADH, ISERC 2015 – 2016

(8) Chair, Conference Oversight Committee, CIEADH, ISERC 2014.

(9) Incoming Chair, Conference Oversight Committee, CIEADH, ISERC 2013.

(10) Judge, ISERC Doctoral Student Paper Competition, 2010 – 2012, 2014

(11) ***Conference Program Chair***: ISERC conference (2012), Orlando, Florida.

(12) Program Co-Chair: Doctoral Colloquium (2012-2013)

(13) Program Chair, Doctoral Colloquium (2013-2014)

(14) Track chair. Tutorials Track (2012-2013) (w/ Jeffrey Herrmann)

9. IJCIEOM (International Joint Conference on Industrial Engineering and Operations Management) Conference

(1) Member, Conference organizing committee, 2022 – present

(2) Member, Scientific Committee, 2022 – present

10. Conference on Applied Human Factors and Ergonomics (AHFE)

(1) Board Member, Scientific Advisory Board of the AHFE Conference on Artificial Intelligence and Social Computing, 2020—present.

(2) Board Member, Scientific Advisory Board of the AHFE Conference Track on Human Factors in Energy: Oil, Gas, Nuclear and Electric Power Industries, 2015—present.

(3) Board Member, Scientific Advisory Board of the AHFE Conference Track on Human Factors, Software, and Systems Engineering, 2015—present.

(4) Scientific Advisory Board Member, 1st International IBM Symposium on Human Factors, Software, and Systems Engineering, Krakow, Poland, July 2014.

11. The 1st International Online Conference on Marine Science and Engineering, MDPI

(1) Member, Event Committee, 2025 – present

12. IEOM Conference

(1) Co-Chair, conference organizing committee, Houston, TX, June 13-15, 2023.

13. POMS Conference Organization

(1) Vice President of Outreach and Awards for Production and Operations Management Society (POMS) College of Healthcare Operations Management (CHOM): 2008 – 2009.

14. Conference co-organizer, Annual Hurricane Conference, Houston, TX, 2009 – 2013

15. Conference Track Organized:

(1) Organized the entire academic track on Value Engineering for SAVE International Conference, Reno, NV, June 2008.

(2) Co-Organizer and Co-Chair, the Academic Track on Value Engineering for SAVE International Conference, Detroit, MI, June 2009.

16. Member, The Scientific Committee of the 1st International Online Conference on Marine Science and Engineering, Online, 2025.

17. Advisory Committee: International Conference on Industrial Engineering Theory, Applications, and Practice. September 2012, Washington D.C.

18. Advisory Committee: International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering/Health Care Partnership, March 24-26, 2010, Gainesville, Florida.

19. Conference Session Chair

(1) INFORMS Annual Meetings, 2004 – 2023.
   1. SD39. Optimization in Drones and Novel Applications, October 15, 2023.
(2) INFORMS International Conference, Beijing, China, June 2012.
(3) INFORMS Computing Society Conference, South Carolina, January 2009.
(4) INFORMS Healthcare Conference, Chicago, IL, June 2013
   1. Recent Advances in Proton Radiation Treatment Planning
(5) INFORMS Southwest Regional Conference, College Station, TX, April 2008.
(6) INFORMS Optimization Society Conference: Optimization and Health Care, February 2006.
(7) INFORMS International Conference, Hong Kong, June 2006.
(8) IISE Annual Research Conference, 2009-2019.
(9) ICOVACS, Louisville, October 2009.
(10) SIAM Optimization Conference, Stockholm, Sweden, May 2005.
(11) APIEMS 2014, “TB7 Healthcare Systems 2”, Jeju, Korea, October 14, 2014.

UNIVERSITY SERVICE at UNIVERSITY of HOUSTON

- **THE DEPARTMENT OF INDUSTRIAL ENGINEERING**

- Chair, Department of Industrial Engineering, May 16, 2011 – present
- Host and Coordinator, Annual IE Honors and Awards Banquet, 2012 – present
- Host and Coordinator, IE Alumni Luncheon, 2011 – 2019
- Host and Coordinator, IE Department Industrial Advisory Board Meeting, 2011 – present
- Host and Coordinator, Luncheon with IE Department Chair, 2011 – present
- Chair, ABET preparation 2011 & 2018. Led the department to successfully complete the ABET visit.
- Member, IE Department Graduate Committee. 2004 – 2010
- Founding Director, Systems Optimization and Computing Laboratory (SOCL), 2004 – present
- Coordinator, Established a new lecture series Scott T. Poage distinguished lecture series in the department to bring world class researchers to UH campus and share their current research progress with our faculty and students.
- Member, ABET preparation, 2005 – present
- Chair, IE Ph.D. Screening Exam Committee, 2005 - 2009
- Member, Department Curriculum Committee, 2005 – 2009
- Member, Faculty Search Committee in Years 2004, 2005, and 2008
- Chair, Fee Committee, 2005 – 2009
- Coordinator, the INFORMS UH lecture series, 2005 - 2010.
- Coordinator, UH Student Best Paper Competition, 2005 – 2010

➢ **THE COLLEGE OF ENGINEERING**

- Member, College Promotion & Tenure Committee, 2016 – 2021
- Member, College of Engineering Steering Committee, 2012 – present
- Member, Andrea Prosperetti Research Computing Awards, 2020 – present
- Chair, Advancement, College of Engineering Strategic Planning Task Force (January 2013 – May 2013)
- Member, College of Engineering Executive Committee Member (May 2011 – present)
- Member, College of Engineering Operations Committee Member (May 2011 – present)
- Member, College of Engineering Faculty workload committee (August 2009 – present)
- Member, College of Engineering Research development committee (May 2011 – present)
- Member, College of Engineering National Awards Committee (May 2011 – present)
- Member, College of Engineering Space Utilization Committee (May 2011 – present)
- Member, College of Engineering Leadership Board Member (May 2011 – present)
- Member, Chair Search Committee, Mechanical Engineering (2011 - 2012)
- Member, Chair Search Committee, Petroleum Engineering (2015)
- Member, Faculty Search Committee, Electrical and Computer Engineering (2012 – 2013)
- Member, The College Teaching Awards Committee (2007-2008)
- Member, The College Research Excellence Award Committee (2007-2008)
- Member, College Computing Committee
- Member, The College of Engineering Database Committee (2004 – 2006)

➢ **THE UNIVERSITY OF HOUSTON**

- Member, The ASPIRE Institute for Healthcare Innovation, 2025 – present (led by Dr. McCullers, Dean of Medical School)
- Member, UH AI Task Force, 2024 – present (led by Dr. Claudia Neuhauser, VP for Research).
- Member of Search Committee, VP for Health Affairs and Dean of Fertitta College of Medicine, 2023 – 2024.
- Board Member, Human-Centered AI, C. T. Bauer College of Business, 2023 – 2024
- Member of Search Committee for the director of Healthcare Innovation initiative, UH School of Medicine, 2022 – 2024
- Member, UH-Humana Research Collaborative Steering Committee, Sep 1, 2019 – present
- Member, UH Institute for Healthcare Innovation Vision Committee, September 2019 – present
- UH Representative, Team Houston: Future Transportation, May 2017 – present
- Board Member, UH Faculty Senate: University Centers Policy Board, Sept 1, 2015 – Aug 2017
- Member, New Faculty Orientation Committee, Spring 2013 – present
- Member, University of Houston Council of Chairs, May 2011 – present
- Faculty Advisor, INFORMS UH Student Chapter, 2005 – 2012
- Member, College of Engineering Dean Search Committee, 2007.

SERVICE TO THE COMMUNITY (Non-Paid Consulting Activities)

2026 – present	Member, Greater Houston Partnership, Houston, TX
2009 – present	The University of Texas, MD Anderson Cancer Center: Radiation therapy treatment planning, Operating Room Scheduling.
2008 – 2010	The Methodist Hospital, Heart Failure Monitoring, Detection, and Prediction.
2007 – 2016	Houston TranStar: Database Design for Building Security, Evacuation Planning and Management.
2006 – 2008	The Methodist Hospital, Automatic Tool Design for Dental Occlusion.
2004 – present	The University of Texas, MD Anderson Cancer Center: Radiation Treatment Planning Optimization.
2001 – 2004	The University of Maryland, School of Medicine: Radiation Treatment Planning Optimization Tool Design and Implementation.

PUBLICATIONS

BOOKS

1. Gino J. Lim and Eva K. Lee, "Optimization in Medicine and Biology," Taylor and Francis, January 2008.

EDITOR of CONFERENCE PROCEEDINGS, JOURNAL, and BOOKS

1. G J. Lim, H. H. Song, and I. Q. Garcia, "Editorial Board Members' Collection Series: Drones in Emergencies Operations", Drones, 2025.
2. G. Lim, J. Shi, and B. Xing, "Powering the Seas: Revolutionizing Shipboard Power Systems with Advanced Control, Alternative Fuels, and Renewable Energy," A special issue of Journal of Marine Science and Engineering (ISSN 2077-1312), June 10, 2025.
3. Gino J. Lim and Jeffrey Herrmann, Proceedings of the 2012 Industrial and Systems Engineering Research Conference (ISERC), May 2012.

JOURNAL PAPERS (my current/former student authors are underlined, * for post-doc or visiting scholar authors under my supervision)

1. T.U. Aktas, G. Lim, and J. Shi, "A chance-constrained model for budget allocation decisions to enhance system resilience," accepted for publication, *Computers & Industrial Engineering*, May 2026.
2. B. Sabzi, K. Wang, G. Lim, "Heterogeneous Impacts of System and Vehicle Security Concern on Autonomous Vehicle Adoption: A Causal Machine Learning Approach," accepted for publication, Journal of Choice Modelling, March 31, 2026.
3. F. Ezzati, Z. S. Dong, and G. Lim, "Resilient Microgrid Planning for Socially Vulnerable Communities," *Applied Energy*, 410, 127434, May 1, 2026. https://doi.org/10.1016/j.apenergy.2026.127434
4. Fariha Torsha, Gino Lim, Hadis Moazami Goudarzi, Radhe Mohan, David Grosshans, and Wenhua Cao, "Quantitative analysis of robustness-based versus LET-based optimization in intensity-modulated proton therapy for pediatric brain tumors," *Journal of Applied Clinical Medical Physics*, 27(2), e70472, February 18, 2026. https://doi.org/10.1002/acm2.70472.
5. B. Sabzi, G.J., Lim, J. Shi, and S. Abbasi, "Equitable Power Grid Restoration Considering Decision Maker's Risk Tolerance," *Computers & Industrial Engineering*, 212, 111751, February 2026. https://doi.org/10.1016/j.cie.2025.111751
6. B. Sabzi, F. Ezzati, J. Shi, G. Lim, K. Wang, and S. Dong, "Energy Equity-Centered Planning of Community Microgrids," *Sustainable Cities and Society*, vol. 130, #106485, July 2025. https://doi.org/10.1016/j.scs.2025.106485
7. K. Wang, G. Lim, B. Race, Y. Zhang, L. Gao, and F. Qiao, "Examining Spatial Patterns and Economic Interactions of Logistics Activities across Three Texas Metropolitan Areas," *Journal of Transport Geography*, 123, 104079, 2025. https://doi.org/10.1016/j.jtrangeo.2024.104079

8. C. Liang, W. Sun, J. Shi, K. Wang, Y. Zhang, and G.J. Lim, “Decarbonizing Maritime Transport through Green Fuel-Powered Vessel Retrofitting: A Game Theoretic Approach,” *Journal of Marine Science and Engineering*, 12(7), 1174, July 2024. DOI: https://doi.org/10.3390/jmse12071174.
9. H. M. Goudarzi, G. Lim, D. Grosshans, R. Mohan, and W. Cao, “Incorporating variable RBE in IMPT optimization for ependymoma,” Journal of Applied Clinical Medical Physics, 25(1): e14207, January 2024. DOI: https://doi.org/10.1002/acm2.14207
10. E. Wari, W. Zhu, and G. Lim, " A Corrosion Maintenance Model Using Continuous State Partially Observable Markov Decision Process for Oil and Gas Pipelines," *Algorithms*, 16, 345, July 2023. https://doi.org/10.3390/a16070345
11. Yu Wang, Chengji Liang, Tugce Aktas, Jian Shi, Yang Pan, Sidun Fang, Gino Lim, “Joint Voyage Planning and Onboard Energy Management of Hybrid Propulsion Ships,” *Journal of Marine Science and Engineering*, 11(3), 585, March 2023.
12. E. Wari, W. Zhu, and G. Lim, “Maintenance in the Downstream Petroleum Industry: A Survey on Methodology and Implementation,” *Computers and Chemical Engineering*, vol. 172, #108177, April 2023. https://doi.org/10.1016/j.compchemeng.2023.108177
13. E. Wari, W. Zhu, and G. Lim, "A Discrete Partially Observable Markov Decision Process Model for the Maintenance Optimization of Oil and Gas Pipelines," *Algorithms*, 16(1), 54, January 2023. https://doi.org/10.3390/a16010054
14. X. Zheng, C. Liang, Y. Wang, J. Shi, G. Lim, “Multi-AGV Dynamic Scheduling in an Automated Container Terminal: A Deep Reinforcement Learning Approach,” *Mathematics*, 10, 4575, December 2, 2022. https://doi.org/10.3390/math10234575
15. N. Ahmadian, G.J. Lim, J. Shi, and M. Torabbeigi, “A Novel Power Distribution Network Assessment Approach using Drones Considering Wireless Charging,” *IEEE Systems*, 16(3), September 2022. https://doi.org/10.1109/JSYST.2021.3110261
16. W. Cao, H. Rocha, R. Mohan, G. Lim, H.M. Goudarzi, B. Ferreira, and J. Dias, “Reflections on beam configuration optimization for intensity-modulated proton therapy,” *Physics Medicine and Biology*, 67(13), June 2022. DOI: 10.1088/1361-6560/ac6fac
17. S. Ebrahimi, G. Lim, B. Hobbs, S. H Lin, R. Mohan, and W. Cao, “A hybrid deep learning model for forecasting lymphocyte depletion during radiation therapy,” *Medical Physics*, vol. 49, pp. 3507–3522, May 2022. DOI: http://dx.doi.org/10.1002/mp.15584
18. Y. Zhang, C. Liang, J. Shi, G. Lim, and Y. Wu, “Optimal Port Microgrid Scheduling Incorporating Onshore Power Supply and Berth Allocation Under Uncertainty,” *Applied Energy*, vol. 313, no. 118856, May 2022.
19. H.J. Park, R. Mirjalili, M.J. Cote, and G.J. Lim, “Scheduling Diagnostic Testing Kit Deliveries with the Mothership and Drone Routing Problem,” *Journal of Intelligent & Robotic Systems*, 105 (38), June 2022. DOI: https://doi.org/10.1007/s10846-022-01632-1
20. N. Ahmadian, G. Lim, M. Torabbeigi, and S. Kim, “Smart Border Patrol Using Drones and Wireless Charging System under Budget Limitation” *Computers & Industrial Engineering*, vol. 164, #107891, February 2022. https://doi.org/10.1016/j.cie.2021.107891

21. J. Cho, B. Craig, M. Hur, and G.J. Lim, "A Novel Port Call Optimization Framework: A Case Study of Chemical Tanker Operations," *Applied Mathematical Modeling*, vol. 102, pp. 101-114, 2022. https://doi.org/10.1016/j.apm.2021.09.037

22. S. Ebhrahimi and G.J. Lim, "A Reinforcement Learning Approach for Finding Optimal Policy of Adaptive Radiation Therapy Considering Uncertain Tumor Biological Response," *Artificial Intelligence in Medicine*, vol. 121, #102193, November 2021. https://doi.org/10.1016/j.artmed.2021.102193

23. A. Darvishan and G.J. Lim, "Dynamic Network Flow Optimization for Real-time Evacuation Reroute Planning under Multiple Road Disruptions," *Reliability Engineering and System Safety*, vol. 214, #107644, October 2021. https://doi.org/10.1016/j.ress.2021.107644

24. L. Wang, C. Liang, J. Shi, A. Molavi, G.J. Lim, and Y. Zhang, "A Bilevel Hybrid Economic Approach for Optimal Deployment of Onshore Power Supply in Maritime Ports," *Applied Energy*, vol 292, #116892, June 15, 2021. https://doi.org/10.1016/j.apenergy.2021.116892

25. S. Ebrahimi, G. Lim, A. Liu, S. Lin, S.G. Ellsworth, C. Grassberger, R. Mohan, and W. Cao, "Radiation-induced lymphopenia risks of photon versus proton therapy for esophageal cancer patients," *International Journal of Particle Therapy*, April 2021. https://doi.org/10.14338/IJPT-20-00086

26. M. Torabbeigi, G. Lim, N. Ahmadian, and S. Kim, "An optimization Approach to Minimize the Expected Loss of Demand Considering Drone Failures in Drone Delivery Scheduling," *Journal of Intelligent & Robotic Systems*, 102(22), March 2021. https://doi.org/10.1007/s10846-021-01370-w

27. W. Zhu, J. Shi, P. Zhi, L. Fan, and G.J. Lim, "Distributed Reconfiguration of a Hybrid Shipboard Power System," *IEEE Transactions on Power Systems*, 36(1), pp. 4-16, January 2021. https://doi.org/10.1109/TPWRS.2020.3009534

28. S.J. Kim and G. Lim, "A Real-time Rerouting Method for Drone Flights under Uncertain Flight Time," *Journal of Intelligent & Robotic Systems*, vol. 100, pp. 1355–1368, December 2020. http://link.springer.com/article/10.1007/s10846-020-01214-z

29. A. Najjarbashi and G. J. Lim, "A Decomposition Algorithm for the Two-Stage Chance-Constrained Operating Room Scheduling Problem," *IEEE Access*, 8(1), pp. 80160-80172, December 2020. DOI: https://doi.org/10.1109/ACCESS.2020.2991031

30. Y. Wu, J. Shi, G. Lim, L. Fan, A. Molavi, "Optimal Management of Transactive Distribution Electricity Markets with Co-optimized Bidirectional Energy and Ancillary Service Exchanges," *IEEE Transactions on Smart Grid*, vol 11, issue 6, pp 4650-4661, November 2020.

31. Xuemin Bai, Gino Lim, David Grosshans, Radhe Mohan, and Wenhua Cao, "A biological effect-guided optimization approach using beam distal-edge avoidance for intensity-modulated proton therapy," *Medical Physics*, 47(9), pp 3816-3825, September 2020. http://dx.doi.org/10.1002/mp.14335

32. A. Molavi, G.J. Lim, and J. Shi, "Stimulating Sustainable Development of Industrial Ports by Hybrid Economic Incentives Using Bilevel Optimization," *Applied Energy*, vol 272., #115188, August 15, 2020.

33. N. Ahmadian, G. Lim, J. Cho, and S. Bora, "A Quantitative Approach for Assessment and Improvement of Network Resilience," *Reliability Engineering and System Safety*, vol. 200, #106977, August 2020.

34. M. Najarian and G.J. Lim, "Optimizing Resilience of Cyber-Physical Systems under Budgetary Constraint," *Reliability Engineering and System Safety*, vol. 198, June 2020. https://doi.org/10.1016/j.ress.2020.106801.

35. Y. Wu, G.J., Lim, and J. Shi, "Stability-Constrained Microgrid Operation Scheduling Incorporating Frequency Control Reserve," *IEEE Transactions on Smart Grid*, 11(2), pp 1007-10017, March 2020. https://doi.org/10.1109/TSG.2019.2929695.

36. Y. Wu, M. Barati, and G.J. Lim, "A Pool Strategy of Microgrid in Power Distribution Electricity Market," *IEEE Transactions on Power Systems*, 35(1), pp 3-12, January 2020. DOI: 10.1109/TPWRS.2019.2916144.

37. A. Molavi, J. Shi, Y. Wu, and G.J. Lim, "Enabling Smart Ports Through the Integration of Microgrids," *Applied Energy*, vol 258, 114022, January 2020. https://doi.org/10.1016/j.apenergy.2019.114022

38. M. Torabbeigi, G.J. Lim, and S. J., Kim, "Drone Delivery Scheduling Optimization Considering Payload-induced Battery Consumption Rates," *Journal of Intelligent & Robotic Systems*, 97(3), pp. 471-487, 2020. DOI: https://doi.org/10.1007/s10846-019-01034-w

39. G.J. Lim, L. Kardar, S. Ebrahimi, and W. Cao, "A Risk-based Modeling Approach for Radiation Therapy Treatment Planning under Tumor Shrinkage Uncertainty," *European Journal of Operational Research*, 280(1), pp266-278, January 2020. https://doi.org/10.1016/j.ejor.2019.06.041

40. Li Liao, G.J. Lim, and X. Zhang, "A Molecular Dynamics Approach for Optimizing Beam Intensities in IMPT Treatment Planning," *Journal of Applied Mathematics and Physics*, 7(9), pp 2130-2147, September 2019. https://doi.org/10.4236/jamp.2019.79146

41. M. Najarian and G.J. Lim, "Design and Assessment Methodology for System Resilience Metrics," *Risk Analysis*, 39(9), pp.1885-1898, September 2019. DOI: https://doi.org/10.1111/risa.13274

42. A. Khabazian, M. Zaghian, and G.J. Lim, "A feasibility study of a risk-based stochastic optimization approach for radiation treatment planning under setup uncertainty," *Computers and Industrial Engineering*, vol 135, pp67-78, September 2019.

43. A. Molavi, G. Lim, and B. Race, "A Framework for Building a Smart Port and Smart Port Index," *International Journal of Sustainable Transportation*, vol. 14, no. 9, pp. 686-700, 2020 https://doi.org/10.1080/15568318.2019.1610919

44. G.J. Lim, M. Rungta, and A. Darvishan, "A Robust Chance Constraint Programming Approach for Evacuation Planning under Uncertain Demand Distribution," ***Featured Article,*** *IISE Transactions*, 51(6), pp 589-604, March 2019.

45. H. Luo, X. Bai, G. Lim, and J. Peng, "New Global Algorithms for Quadratic Programming with A Few Negative Eigenvalues Based on Alternative Direction Method and Convex Relaxation," *Mathematical Programming Computation*, 11(1), pp 119-171, March 2019.

46. S. Abbasi, M. Barati, and G.J. Lim, "A Parallel Sectionalized Restoration Scheme for Resilient Smart Grid Systems," *IEEE Transactions on Smart Grid*, 10(2), pp 1660-1670, March 2019.

47. A. Najjarbashi and G. J. Lim, "A Variability Reduction Method for the Operating Room Scheduling Problem under Uncertainty using CVaR," *Operations Research for Health Care*, vol 20, pp 25-32, March 2019.

48. W. Cao, A. Khabazian, P. Yepes, G. Lim, F. Poenisch, D. Grosshans, and R. Mohan, “Reply to Comment on ‘Linear energy transfer incorporated intensity modulated proton therapy optimization’, *Physics in Medicine and Biology*, vol. 64(5), 058002, February 2019. DOI: https://doi.org/10.1088/1361-6560/aaff72

49. Bai, Xuemin; Lim, Gino; Grosshans, David; Mohan, Radhe; Cao, Wenhua, “Robust optimization to reduce the impact of biological effect variation from physical uncertainties in intensity-modulated proton therapy," *Physics in Medicine and Biology*, 64(2), #025004, January 2019. DOI: https://doi.org/10.1088/1361-6560/aaf5e9

50. G.J. Lim, J. Cho, S. Bora*, T. Biobaku, and H. Parsaei, “Models and Computational Algorithms for Maritime Risk Analysis: A review,” *Annals of Operations Research*, 271(2), 765-786, December 2018.

51. S. Kim and G.J. Lim, “Drone-aided border surveillance with an electrification line battery charging system,” *Journal of Intelligent & Robotic Systems*, 92(3), 657-670, December 2018.

52. S.J. Kim, and G. Lim, “A Hybrid Battery Charging Approach for Drone-aided Border Surveillance Scheduling,” *Drones*, 2(4), 38; doi: 10.3390/drones2040038, November 2018.

53. J. Cho, G. Lim, T. Biobaku, and S. Kim, “Liquefied Natural Gas Inventory Routing Problem under Uncertain Weather Condition,” *International Journal of Production Economics*, vol 204, pp 18-29, October 2018.

54. G.J. Lim, S. Kim, J. Cho, Y. Gong, and A. Khodaei, “Multi-UAV Pre-positioning and Routing for Power Network Damage Assessment,” *IEEE Transactions on Smart Grid*, 9(4), pp 3643-3651, July 2018.

55. A. Khayatian, M. Barati, and G.J. Lim, “Integrated Microgrid Expansion Planning in Electricity Market with Uncertainty,” *IEEE Transactions on Power Systems*, 33(4), pp 3634-3643, July 2018.

56. M. Zaghian, G.J. Lim, and A. Khabazian, “A Chance-Constrained Programming Framework to Handle Uncertainties in Radiation Therapy Treatment Planning,” *European Journal of Operational Research*, vol 266, no. 2, pp 736-745, April, 2018.

57. S. Kim, G. J. Lim, and J. Cho, “Drone Flight Scheduling Under Uncertainty on Battery Duration and Air Temperature,” *Computers and Industrial Engineering*, 117, pp 291-302, February 2018.

58. W. Cao, A. Khabazian, P. Yepes, G. Lim, F. Poenisch, D. Grosshans, and R. Mohan, “Linear energy transfer incorporated intensity modulated proton therapy optimization," ***Featured Article,*** *Physics in Medicine and Biology*, vol. 63, no. 1, Article #: 015013(10pp), January 2018.

59. S. Kim, G. J. Lim, J. Cho, and M. Cote, “Drone-aided Healthcare Services for Patients with Chronic Diseases in Rural Areas,” *Journal of Intelligent & Robotic Systems*, vol 88 (1), pp 163-180, October 2017.

60. M. Zaghian, W. Cao, W. Liu, L. Kardar, K. S. Randeniya, R. Mohan, G. Lim, “Comparison of linear and nonlinear programming approaches for "worst case dose" and "minmax" robust optimization of intensity-modulated proton therapy dose distributions," *Journal of Applied Clinical Medical Physics*, vol. 18, no. 2, pp. 15-25, March 2017.

61. L. Liao, G. J. Lim, Y. Li, J. Yu, N. Sahoo, H. Li, M. Gillin, X. Zhu, A. Mahajan, S. J. Frank, D.R. Grosshans, Q. Nguyen, D. Gomez, and X. Zhang, “Robust optimization for intensity modulated proton

therapy treatment plans with multi-isocenter large fields," *International Journal of Particle Therapy*, vol 3, no. 2, pp305-311, December, 2016.

62. G.J. Lim, S. Zangeneh, and S. Kim, "A clustering approach for defining hurricane evacuation zones," *Journal of Urban Planning and Development*, vol. 142, no. 4, 04016008-1, December 2016.
63. G.J. Lim, A. Mobasher, J.F. Bard, A. Najjarbashi, "Nurse Scheduling with Lunch Break Assignments in Operating Suites," *Operations Research for Health Care*, 10, pp. 35-48, September 2016.
64. T. Biobaku, G. Lim, S. Bora, J. Cho, and H. R. Parsaei, "An optimal sonar placement approach for detecting underwater threats under budget limitations," *Journal of Transportation Security*, 7(1), pp17-34, June 2016.
65. S. Lin, G. Lim, and J. Bard, "Benders Decomposition and an IP-based Heuristic for Selecting IMRT Treatment Beam Angles," *European Journal of Operational Research*, 251(3), pp. 715-726, June 2016.
66. G.J. Lim and M.R. Baharnemati, and S. Kim, "An Optimization Approach for Real Time Evacuation Reroute Planning," *Annals of Operations Research*, 238(1), pp. 375-388, March 2016.
67. M. Akladios, G. Lim, and H.R. Parsaei, "How Does Effectiveness of Student Learning Differ: a Comparison between Online vs. Face-to-Face formats," *International Journal of Business, Humanities and Technology*, 5(6). pp. 18-21, December 2015.
68. Xiang W*, Yin J, Lim G, "An ant colony optimization approach for solving an operating room surgery scheduling problem," *Computers and Industrial Engineering*, 85, pp. 335-345, July 2015.
69. T. Biobaku, G. Lim, J. Cho, H. Parsaei, S. Kim, "Liquefied natural gas ship route planning: A risk analysis approach," *Procedia Manufacturing*, vol. 3, pp 6430-6437, July 2015. DOI: 10.1016/j.promfg.2015.07.290.
70. J. Cho, G. Lim, T. Biobaku, H. Parsaei, S. Kim, "Safety and security management with Unmanned Aerial Vehicle (UAV) in oil and gas industry," *Procedia Manufacturing*, vol. 3, pp 6438-6443, July 2015. DOI: 10.1016/j.promfg.2015.07.290.
71. A. Najjarbashi and G. Lim, "Using augmented ε-constraint method for solving a multi-objective operating theater scheduling," *Procedia Manufacturing*, vol. 3, pp 5871-5878, July 2015. DOI: 10.1016/j.promfg.2015.07.455.
72. W. Cao*, G. Lim, Y. Li, X. Zhu, and X. Zhang, "Improved beam angle arrangement in intensity modulated proton therapy treatment planning for localized prostate cancer," *Cancers*, 7(2), pp. 574-584, June 2015.
73. T. Biobaku, G. Lim, S. Bora*, J. Cho, H. Parsaei, "Literature survey on underwater threat detection," *Transactions on Maritime Science*, 4(1), pp 14-22, April 2015.
74. Xiang W*, Yin J, Lim G, "A short-term operating room surgery scheduling problem integrating multiple nurses roster constraints," *Artificial Intelligence in Medicine*, 63(2), pp. 91-106, February 2015.
75. G.J. Lim, M. Rungta, and M.R. Baharnemati, "Reliability Analysis of Evacuation Routes under Capacity Uncertainty of Road Links," *IIE Transactions*, vol. 47, pp 50-63, January 2015. DOI:10.1080/0740817X.2014.905736 **(*Featured in IIE magazine*)**

76. W. Xiang and G. Lim, "Pareto Set-based Ant Colony Optimization for Multi-Objective Surgery Scheduling Problem," *The Open Cybernetics & Systemics Journal*, 8(1), pp. 1211-1218, December 2014.

77. L. Kardar, Y. Li, X. Li, H. Li, W. Cao, J.Y. Chang, L. Liao, R. X. Zhu, N. Sahoo, M. Gillin, Z. Liao, R. Komaki, J. D. Cox, G. Lim, and X. Zhang, "Evaluation and mitigation of the interplay effects for intensity modulated proton therapy for lung cancer in a clinical setting," *Practical Radiation Oncology*, 3(6), pp e259–e268, November 2014.

78. J. Cho, G. Lim, T. Biobaku, S. Bora*, and H. Parsaei, "Liquefied Natural Gas Ship Route Planning Model Considering Market Trend Change," *Transactions on Maritime Science-TOMS*, 3(2), pp 119-130, October 2014.

79. W. Cao, G.J. Lim, Li, Liao, Y. Li, S. Jiang, X. Li, K. Suzuki, G. Kazumichi, D. Gomez, X. Zhu, and X. Zhang, "Proton energy optimization and reduction for intensity-modulated proton therapy", *Physics Medicine and Biology*, 59 (21), pp 6341-6354, October 2014.

80. G.J. Lim, L. Kardar, and W. Cao, "A Hybrid Framework for Optimizing Beam Angles in Radiation Therapy Planning," *Annals of Operations Research*, 217(1), pp 357-383, May 2014. DOI: 10.1007/s10479-014-1564-z.

81. M. Zaghian, G.J. Lim, W. Liu, and R. Mohan "An Automatic Approach for Satisfying Dose-Volume Constraints in Linear Fluence Map Optimization for IMPT," *Journal of Cancer Therapy*, 5(2), pp 198-207, February 2014.

82. Yupeng Li, Laleh Kardar, Xiaoqiang Li, Heng Li, Wenhua Cao, Joe Y. Chang, Li Liao, Ronald X. Zhu, Narayan Sahoo, Gillin Michael, Gino Lim, and Xiaodong Zhang, "On the interplay effects with proton scanning beams in stage III lung cancer," *Medical Physics*, 41(2):021721, February 2014.

83. G.J. Lim and A.D. Sonmez, "γ – Robust Facility Relocation Problem," *European Journal of Operational Research*, 229 (1), pp 67-74, August 16, 2013.

84. S. Desai and G.J. Lim, "Solution Time Reduction Techniques of a Stochastic Dynamic Programming Approach for Hazardous Materials Route Selection Problem," *Computers and Industrial Engineering*, 65(4), pp 634-645, August 2013.

85. W. Cao, G.J., Lim, X. Li, Y. Li, R. Zhu, and X. Zhang, "Incorporating deliverable monitor unit constraints into spot intensity optimization in IMPT treatment planning," *Physics in Medicine and Biology*, 58(15), pp. 5113-5125, July 2013.

86. Xiang W*, Yin J, Lim G, "Modified Ant Colony Algorithm for Surgery Scheduling under Multiresource Constraints," *Advances in Information Sciences and Service Sciences*, 5(9), pp. 810-818, May 2013. DOI:10.4156/aiss.vol5.issue9.95.

87. S. Desai and G.J. Lim, "Information Based Rerouting Framework to Hazardous Materials Transportation", *Industrial and Systems Engineering Review*, 1(1), pp1-12, 2013.

88. G.J. Lim and L. Ma, "GPU-based Parallel Vertex Substitution Algorithm for the p-Median Problem," *Computers and Industrial Engineering*, 64(1), pp. 381- 388, January 2013.

89. G.J. Lim, A. Mobasher, and M. Cote, "Multi-objective Nurse Scheduling Models with patient workload and nurse preferences," *Management*, 2(5), pp. 149- 160, November 2012.

90. M. Rungta, G.J. Lim, and M.R. Baharnemati, "Optimal Egress Time Calculation and Path Generation for Large Evacuation Networks," *Annals of Operations Research*, 201 (1), pp 403-421, 2012.

91. G.J. Lim, S. Zangeneh, M.R. Baharnemati, and T. Assavapokee, "A Capacitated Network Flow Optimization Approach for Short Notice Evacuation Planning,", *European Journal of Operational Research*, 223(1), pp. 234-245, November 2012.

92. W. Cao, G.J. Lim, A. Lee, Y. Li, W. Liu, R. Zhu, and X. Zhang, "Uncertainty incorporated beam angle optimization for IMPT treatment planning," *Medical Physics*, 39(8), pp 5248-5256, August 2012.

93. A.D. Sonmez and G.J. Lim, "A decomposition approach for facility location and relocation problem with demand change under uncertainty," *European Journal of Operational Research*, 218 (2), pp 327-338, 2012.

94. Gino J. Lim and W. Cao, "A two-phase method for selecting IMRT treatment beam angles: Branch-and-Prune and local neighborhood search," *European Journal of Operational Research*, 217 (3), pp 609-618, 2012.

95. A. Mobasher, G. Lim, J.F. Bard, and V. Jordan, "Daily scheduling of nurses in operating suites," *IIE Transactions on Healthcare Systems Engineering*, vol. 1, Issue 4, pp 232-246, 2011.

96. S. Desai, G. J. Lim, and M. Karson, "A Comparison of Multivariate Statistical Methods for Estimating Expected Consequences for Low-probability and High-consequence Incidents," *Human Factors and Ergonomics in Manufacturing & Service Industries*, vol. 20, Issue 3, pp 233-250, 2010.

97. Gino J. Lim and Sumeet Desai, "Markov Decision Process Approach for Multiple Objective Hazardous Materials Transportation Route Selection Problem," *International Journal of Operational Research*, vol. 7, No. 4, pp 506-529, 2010.

98. Gino J. Lim, "How mathematical models can help improve cancer treatment plans," *Analytics*, pp31-, 34, May/June 2010.

99. Gino J. Lim, Josh Reese and Allen Holder, "Fast and Robust Techniques for Euclidean p-Median Problem with Uniform Weights," *Computers and Industrial Engineering*, vol. 57, no. 3, pp 896-905, 2009.

100. A. Abdel-Rahman and G. J. Lim, "A nonlinear Partial Least Squares algorithm using quadratic fuzzy inference system," *J. of Chemometrics*, vol 23, pp 530-537, 2009.

101. Gino J. Lim, "Comments on: Intensity Modulated Radiation Therapy treatment plan optimization," by H.E. Romeijn and J.F. Dempsey, *TOP – Journal of Statistics and Operations Research*, vol. 16, pp 248-250, 2008.

102. Gino J. Lim, Jaewon Choi, and Radhe Mohan, "Iterative Solution Methods for Beam Angle and Fluence Map Optimization in Intensity Modulated Radiation Therapy Planning," *OR Spectrum*, vol 30, no 2, pp 289-309, April 2008.

103. Gino J. Lim, Michael C. Ferris, David M. Shepard, Stephen J. Wright, and Matthew A. Earl, "An Optimization Framework for Conformal Radiation Treatment Planning," *INFORMS Journal On Computing*, vol 19, no. 3, pp 366-380, Summer 2007.

104. D.M. Shepard, Z. Jiang, M.A. Earl, M.C. Ferris, Jinho Lim, and S. Naqvi, "A Toolbox for IMRT Optimization," *Medical Physics*, vol. 30, no. 9, pp. 2320-2322, 2003.

105. D.M. Shepard, L. Chin, S. DiBiase, S. Naqvi, Jinho Lim, M.C. Ferris, "Clinical Implementation of an Automated Planning System for Gamma Knife Radiosurgery," *International Journal of Radiation Oncology*, vol 56, no. 5, pp 1488-1494, 2003.

106. Michael C. Ferris, Jinho Lim, and David Shepard, "An Optimization Approach for the Radiosurgery Treatment Planning," *SIAM Journal on Optimization*, vol 13, no 3, pp 921-937, 2003.

107. Michael C. Ferris, Jinho Lim, and David Shepard, "Radiosurgery Treatment Planning via Nonlinear Programming," *Annals of Operations Research*, vol 119, pp 247-260, 2003.

CONFERENCE PROCEEDINGS (Refereed**)**

1. F. Ezzati, G Lim, and S. Dong, “Equitable Energy Trading in Microgrids for Resilience and Cost Efficiency: A DRL-ADMM Solution Framework,” International Communications Energy Conference (INTELEC) 2025, Houston, TX, October 12-15, 2025.
2. G. J. Lim, B. Sabzi, and J. Shi, “Networked Microgrid Restoration Using Reinforcement Learning,” *in Proceedings of IISE Annual Conference and Expo*, pp. 748-753, May 2024.
3. Jialei Zhang, Chengji Liang, Jian Shi, Gino J Lim, Yang Pan, Kailai Wang, Sasha Zhijie Dong, “Assessment of Port Resilience: An Analytical Framework based on Transportation and Electrical Power Network Coupling,” *2023 IEEE Electric Ship Technologies Symposium (ESTS)*, pp. 248-257, August 2023.
4. Tugce Uslu Aktas, Jian Shi, Gino J Lim, John Prousalidis, Fabio D'Agostino, Chengji Liang, “Decarbonization of the Maritime Transportation Systems: Recent Progress, Challenges, and Prospects,” *2023 IEEE Electric Ship Technologies Symposium (ESTS)*, pp. 224-230, August 2023.
5. Ezra Wari, Weihang Zhu, Gino Lim, Yisha Xiang, “A Continuous State Partially Observable Markov Decision Process Model for the Maintenance of Oil and Gas Pipeline,” *in Proceedings of IISE Annual Conference and Expo*, May 2023.
6. Ezra Wari, Weihang Zhu, Gino Lim, “An Oil and Gas Pipeline Maintenance Optimization Model Using Discrete Partially Observable Markov Decision Process,” *in Proceedings of IISE Annual Conference and Expo*, May 2023.
7. H M. Goudarzi1, G Lim, D Grosshans, R Mohan, and W Cao, “A treatment planning study comparing LET- and variable RBE-based optimization for intensity-modulated proton therapy,” 64th Annual Meeting & Exhibition, SU-H330-IePD-F4-4, American Association of Physicists in Medicine (AAPM), 2022, July 10-14, Washington, DC.
8. H. Moazami, G. Lim, R. Mohan, W. Cao, “A beam angle optimization approach in intensity-modulated proton therapy considering the biological effect of protons”, *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, May 2022.

9. S. Ebrahimi, G. Lim, B. Hobbs, S. Lin, R. Mohan and W. Cao, “Forecasting Absolute Lymphocyte Count Depletion During and After Radiation Therapy Using Deep Learning,” 38(6), WE-lePD-TR, AAPM, June 2021.
10. Ebrahimi, S., Lim, G.J., “Robust Adaptive Approach Incorporating Tumor Shrinkage in Radiation Treatment Planning,” *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, November 2020.
11. W. Zhu, J. Shi, P. Zhi, Y. Yang, X. Wei, and G. Lim, “Mission Based Reconfiguration for Hybrid Shipboard Power Systems Considering Threats,” 2020 IEEE 18th International Conference on Industrial Informatics (INDIN), DOI: 10.1109/INDIN45582.2020.9442174
12. S. Ebrahimi, W. Cao, A. Liu, G. Lim, S. Lin, and R. Mohan. "Assessment of Radiation-Induced Lymphopenia Risks for Esophageal Patients-Planning Study Comparing Proton and Photon Therapy," Medical Physics, 46(6), p E594-E594. July 2019.
13. N. Ahmadian, G.J. Lim, M. Torabbeigi, and S.J. Kim, “Collision-Free Multi-UAV Flight Scheduling for Power Network Damage Assessment,” *in Proceedings of 2019 International Conference on Unmanned Aircraft Systems, June* 2019, Atlanta, GA.
14. X. Bai, G. Lim, D. Crosshans, R. Mohan, and W. Cao, “Biological Based Robust Optimization for Intensity-Modulated Proton Therapy,” Medical Physics, 45(6), p E643, June 2018.
15. S. Abbasi, G. Lim, and M. Barati, “Robust Optimization on Power System Restoration Following a Hurricane,” *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Orlando, FL, May 19-22, 2018. (2nd place in ***Best Paper Award***, Energy Systems Division)
16. M. Najarian, G.J. Lim, and M. Barati, “Levelized Resiliency Assessment of Interdependent Natural Gas and Electric Power Systems,” *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Orlando, FL, May 19-22, 2018.
17. S.J. Kim, G.J. Lim, N. Ahmadian, and M. Torabbeigi, “A Rescheduling Method of Drone Flights under Insufficient Remaining Battery Duration,” *in Proceedings of 2018 International Conference on Unmanned Aircraft Systems, pp. pp466-472*, June 2018, Dallas, TX.
18. M. Torabbeigi, G.J. Lim, S.J. Kim, “Drone delivery schedule optimization considering the reliability of drones,” *in Proceedings of 2018 International Conference on Unmanned Aircraft Systems, pp. pp1048-1053,* June 2018, Dallas, TX.
19. Khayatian, A., Barati, M., and Lim, G. J., “Policy Making of Optimal Power Planning and Emission-Reduction with Microgrid,” *in Proceedings of IEEE/PES Transmission and Distribution Conference and Exposition (T&D),* April 2018 IEEE/PES (pp. 1-5). IEEE.
20. Abbasi, S., Barati, M. and Lim, G.J., “A Simplified Parallel Power System Restoration for Large-scale Transmission Grids,” *in Proceedings of IEEE/PES Transmission and Distribution Conference and Exposition (T&D),* April 2018 IEEE/PES. IEEE.
21. S. Kim, G. J. Lim, and J. Cho, “Drone Relay Stations for Supporting Wireless Communication in Military Operations,” J. Chen (ed.), *Advances in Human Factors in Robots and Unmanned Systems*, Advances in Intelligent Systems and Computing vol. 595, pp 123-130, Springer International Publishing AG 2018. DOI 10.1007/978-3-319-60384-1_12.

22. S. Kim, and G. J. Lim, "Drone-aided wireless network services for destroyed areas by hurricanes," *in Proceedings in Annual Hurricane Conference*, Houston, TX, August 4, 2017.

23. S. Abbasi, M. Barati, and G. J. Lim, "A GPP-based Sectionalization toward a Fast Power Transmission System Restoration," P. Fechtelkotter and M. Legatt (eds.), *Advances in Human Factors in Energy: Oil, Gas, Nuclear and Electric Power Industries*, Advances in Intelligent Systems and Computing 599, Los Angeles, California, USA, 2017. DOI 10.1007/978-3-319-60204-2_2, Springer International Publishing AG 2018.

24. S. Kim, G. J. Lim, and J. Cho, "A Robust Optimization Approach for Scheduling Drones Considering Uncertainty of Battery Duration," *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Pittsburgh, PA, May 20-23, 2017.

25. S. Abbasi, M. Barati, and G. J. Lim, "A Multi-objective MPEC Model for Disaster Management of Power System Restoration," *in Proceedings of the Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Pittsburgh, PA, May 20-23, 2017. (***Best Paper Award***, Energy Systems Division)

26. A. Khayatian, M. Barati, and G.J. Lim, "Market-based and resilient coordinated microgrid planning under uncertainty," *in Proceedings of IEEE/PES Transmission and Distribution Conference and Exposition (T&D)*, Dallas, TX, pp1-5, May 2-5, 2016. DOI: 10.1109/TDC.2016.7520030

27. W. Cao, M. Zaghian, K. Randeniya, G. Lim, U. Titt, and R. Mohan, "An Investigation of Including Variable Relative Biological Effectiveness in Intensity Modulated Proton Therapy Planning Optimization for Head and Neck Cancer Patients," MEDICAL PHYSICS 42(6):3356 · MAY 2015.

28. L. Liao, J. Yu, Y. Li, X. R. Zhu, H. Li, G. Lim, and X. Zhang, "4DCT Robust Optimization for Esophageal Cancer Using Intensity Modulated Proton Therapy," MEDICAL PHYSICS 42(6):3332 · MAY 2015.

29. S. Bora*, G. Lim, T. Biobaku, J. Cho, and H. Parsaei, "Case Studies on Maritime Incidents: A Review," in Proceedings of the 2015 Industrial and Systems Engineering Research Conference, #I1069, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

30. G.J. Lim, W. Cao, and R. Mohan, "Recent Advances in Intensity Modulated Proton Therapy Treatment Planning Optimization," in Proceedings of the 15th Asia Pacific Industrial Engineering and Management Systems Conference, pp1520-1525, Jeju, Korea, October 12-15, 2014.

31. S. Bora*, G. Lim, T. Biobaku, J. Cho, and H. Parsaei, "Assessing the Resiliency and Importance of a Supply Chain Network," in Proceedings of the 44th International Conference on Computers & Industrial Engineering, pp 1530-1540, ID: imss14-cie44-400, Istanbul, Turkey, October 2014.

32. W Cao, M Zaghian, W Liu, L Kardar, S Randeniya, G Lim, R Mohan. "An Evaluation of Three Robust Optimization Approaches in IMPT Treatment Planning", Medical Physics, 41(6), 552, 2014

33. Bora S.*, Boros E., Lei L., Art Chaovalitwongse W., J. Lim G. and R. Parsaei H., "A Case of the Container-Vessel Scheduling Problem," In Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems, pp 63-71, ESEO, Angers, Loire Valley, France. DOI: 10.5220/0004831400630071

34. Laleh Kardar, Gino J. Lim, Jiming Peng, Wenhua Cao, Guven Kaya, "Implementation of Gradient Projection Algorithm to Radiation Therapy Treatment Planning," in Proceedings of Institute of Industrial Engineers Annual Research Conference, Montreal, Canada, 31 May – 3 June, 2014.

35. Taofeek Biobaku, Gino Lim, Selim Bora*, Jaeyoung Cho, and Hamid R. Parsaei, "Underwater Sonar Placement", in Proceedings of Institute of Industrial Engineers Annual Research Conference, Montreal, Canada, 31 May – 3 June, 2014.

36. S. Bora*, E. Boros, L. Lei, W. Art Chaovalitwongse, G.J. Lim, and H. Parsaei, "A Case of the Container-Vessel Scheduling Problem," International Conference on Operations Research and Enterprise Systems (ICORES), 2014.

37. T. Biobaku, G. Lim, S. Bora*, S. Ahmadi, H. Parsaei, "Sonar Placement and Deployment in a Maritime Environment," in Proceedings of Qatar Foundation Annual Research Forum, Vol. 2013, ICTP 018: DOI: 10.5339/qfarf.2013.ICTP-018

38. Wenhua Cao, Gino Lim, Xiaoqiang Li, Yupeng Li, Xiaodong Zhang. "An Investigation of Optimizing Proton Energies in IMPT Treatment Planning", Medical Physics, 40(6), p420, 2013.

39. Li Liao, Bin Cai, Yupeng Li, Wenhua Cao, Gino Lim, Heng Li, Xiaodong Zhang. "Using molecular dynamics simulation algorithm to overcome the local minima of gradient methods in IMPT treatment plan optimization", Medical Physics, 40(6), p416, 2013.

40. L. Kardar, G. Lim, W. Cao, and X. Zhang, "The impact of tumor geometrical changes on IMPT treatment plans," in Proceedings of the IIE Annual Conference, pp1552-1557, 2013.

41. M. Zaghian, G. Lim, W. Liu, and R. Mohan, "Incorporating Dose-Volume Constraints in Fluence Map Optimization for Intensity Modulated Proton Therapy," Proceedings of the IIE Annual Conference, pp1558-1565, 2013.

42. W. Cao, G. Lim, and X. Zhang, "Selecting proton energy levels in pencil beam scanning proton therapy," in Proceedings of the IIE Annual Conference, pp1566-1571, 2013.

43. Mukesh Rungta and Gino J. Lim, "Reliable Traffic Routing and Scheduling During Evacuation," THC – IT Conference & Exhibition 2012, II-19-20, Houston, TX.

44. W. Cao, X. Li, G. Lim, Y. Li, X. Zhu, and X. Zhang, "An investigation of the impact of spot spacing on plan quality using IMPT optimization incorporating deliverable monitor unit constraints," *Medical Physics*, vol. 39, no. 6, p3981, June, 2012.

45. X. Li, W. Cao, X. Wang, Y. Li, X. Zhu, N. Sahoo, M. Gillin, G. Lim, and X. Zhang, "Deliverable optimization incorporating monitor unit constraints for intensity modulated proton therapy treatment planning," *Medical Physics*, vol. 39, no. 6, p3982, June, 2012.

46. Gino Lim, Laleh Kardar, Wenhua Cao, and Abhilasha Kelkar, "Radiation Therapy Beam Angle Optimization Methods: A Comparison Study," ID: 122, pp 1522-1528, ISERC 2012.

47. Arezou Mobasher and Gino Lim, "Nurse Scheduling Problem in an Operating Suite: A Heuristic Approach," ID: 383, pp 1431-1439, ISERC 2012.

48. Gino Lim and Arezou Mobasher, "Operating Suite Nurse Scheduling Problem: A Column Generation Approach," ID: 385, pp 1440-1449, ISERC 2012.

49. Mohammad Reza Baharnemati and Gino Lim, "An Information-based Rerouting Decision Making Tool for Regional Evacuation," ID: 705, pp1812-1821, ISERC 2012.

50. Gino Lim and Mukesh Rungta, “Optimal Clearance Time and Path Generation for Large Evacuation Networks,” ID: 974, ISERC 2012.

51. McGuire MF[*], Lim G, Brown RE. “Uncovering Disease Networks using Counterterrorism Approaches,” 6th INFORMS Workshop on Data Mining and Health Informatics, Charlotte, NC November 2011.

52. W. Cao, G. Lim, Y. Li, and X. Zhang, “Using Beam Angle Optimization to Improve Treatment Plan Quality of Intensity Modulated Proton Therapy (IMPT) for Prostate Cancer,” *Medical Physics*, vol. 38, no. 6, p3741, 2011.

53. Arezou Mobasher and Gino Lim, “Nurse Scheduling Problem in an Operating Suite,” Proceedings of the IIE Annual Conference, ID: 261, **IERC** 2011.

54. Mohammad Reza Baharnemati and Gino Lim, “Hurricane Evacuation Planning: A Network Flow Optimization Approach,” in *Proceedings of the 61st Annual Conference and Expo of the Institute of Industrial Engineers 2011*, 2, pp 1545-1552.

55. Wenhua Cao and Gino Lim, “Beam Angle Selection in Intensity Modulated Proton Therapy Treatment Planning for Prostate Cancer,” Proceedings of the IIE Annual Conference, ID: 723, **IERC** 2011.

56. Gino Lim and Arezou Mobasher, “Robust Nurse Scheduling Problem,” Proceedings of the IIE Annual Conference, ID: 724, **IERC** 2011.

57. Ayse D. Sonmez and Gino Lim, “Alpha-Robust Facility Relocation Problem,” Proceedings of the IIE Annual Conference, ID: 876, **IERC** 2011.

58. Likang Ma and Gino Lim, “GPU-Based Parallel Algorithm Design and Implementation for IMRT Treatment Planning,” Proceedings of the IIE Annual Conference, ID: 1105, **IERC** 2011.

59. Likang Ma and Gino Lim, “GPU-Based Parallel Computational Algorithms for Solving P-Median Problem,” Proceedings of the IIE Annual Conference, ID: 1110, **IERC** 2011.

60. Gino J. Lim and Wenhua Cao, “A beam angle optimization approach for 3D Intensity Modulated Proton Therapy treatment planning”, Proceedings of the IIE Annual Conference, pp 2042-2047, **IERC** 2010.

61. Shabnam Zangeneh and G.J. Lim, “A mathematical approach to define hurricane evacuation zones,” Proceedings of the IIE Annual Conference, pp 2138-2143, **IERC** 2010.

62. Gino J. Lim, MohammadReza Baharnemati, “An evacuation planning framework: A path-based optimization approach,” Proceedings of the IIE Annual Conference, **IERC** 2010.

63. Arezou Mabasher and G.J. Lim, “A two-state non-weighted goal programming approach for Nurse Scheduling Problem under consideration of patient demand and shift preferences of nurses,” Proceedings of the IIE Annual Conference, **IERC** 2010.

64. Ayse D. Sonmez and G.J. Lim, “Facility location and relocation problem with uncertain future demand,” Proceedings of the IIE Annual Conference, pp 2049-2054, **IERC** 2010.

65. Pooya Tabesh, G.J. Lim, S. Khator, and C. Dacso, “A support vector machine approach for predicting heart conditions,” Proceedings of the IIE Annual Conference, **IERC** 2010.

66. M. Aklidios, H.R. Parsaei, and G.J. Lim, “Comparing the effectiveness and students’ learning in an engineering economy course,” Proceedings of the IIE Annual Conference, **IERC** 2010.

67. M. Ho, G.B. Song, and G.J. Lim, “Development of innovative shape memory alloy based tool for Brachytherapy,” pp1593, Earth and Space 2010: Engineering, Science, Construction, and Operations in Challenging Environments, 2010.

68. Gino J. Lim, Shabnam Zangeneh, M.Reza Baharnemati, and Hamid R. Parsaei, “A network flow based optimization approach for hurricane evacuation planning”, **ICOVACS** 2009.

69. Gino J. Lim, Shabnam Zangeneh, M.Reza Baharnemati, and Tiravat Assavapokee, “A sequential solution approach for short notice evacuation scheduling and routing”, Proceedings of the IIE Annual Conference, pp874-879, **IERC** 2009.

70. Gino J. Lim, Allen Holder, and Joshua Reese, “A clustering approach for optimizing beam angles in IMRT planning,” Proceedings of the IIE Annual Conference, pp663-668, **IERC** 2009.

71. A. Zhang, L. Dong, X. Zhu, R. Zein, J. Lim, X. Wang, M. Li, J. Xu, Y. Kang, M. Gillin, R. Mohan, “Software tools for transferring treatment plans between two planning systems,” Medical Physics, 32(6), p.1969, June 2005.

72. D.M. Shepard, J. Lim, and M.C. Ferris, “Clinical implementation of inverse planning for gamma knife radiosurgery,” International Journal of Radiation Oncology – Biology & Physics, 51(3), pp.126-127, November, 2001.

73. Harriet Black Nembhard, Ming-Shu Kao, and Gino J. Lim, "Integrating Discrete-Event Simulation with Statistical Process Control Charts for Transitions in a Manufacturing Environment," Proceedings of the 1999 Winter Simulations Conference - Manufacturing Applications, pp 701-708, 1999.

BOOK CHAPTERS

1. J. Shi, G. Lim, and A. Molavi, “Optimization for power systems in maritime environment,” In: Pardalos, P.M., Prokopyev, O.A. (eds) Encyclopedia of Optimization. Springer, Cham. https://doi.org/10.1007/978-3-030-54621-2_812-1, April, 2024.

2. S. Bora*, G. Lim, H. Parsaei, “Risk Analysis and Efficient Logistics for Maritime Ports and Waterways in Qatar,” (invited), Industrial Engineering Applications in Emerging Countries, Chapter 2, vol2, pp 29-50, Taylor and Francis (CRC Press), 2015.

3. S. Bora*, E. Boros, L. Lei, A. Chaovalitwongse, G. Lim, H. Parsaei, “A Vessel Scheduling Problem with Special Cases,” Operations Research and Enterprise Systems, Communications in Computer and Information Science Series 509, pp. 108-125, Springer International Publishing, 2015. DOI: 10.1007/978-3-319-17509-6_8

4. A. Mobasher, G. Lim, J.F. Bard, and V. Jordan, “Daily Scheduling of Nurses in Operating Suites,” Handbook of Industrial and Systems Engineering, 2nd ed., Chapter 55, CRC Press, Taylor & Francis, October 11, 2013.

5. Mukesh Rungta and Gino J. Lim, “Optimization in Evacuation Route Planning,” Handbook of Emergency Response: A Human Factors and Systems Engineering Approach, CRC Press, Chapter 5, pp97-119, August 2013.

6. Gino J. Lim and Arezou Mobasher and Laleh Kardar and Murray J. Cote, “Nurse Scheduling,” Handbook of Healthcare System Scheduling, International Series in Operations Research & Management Science, Chapter 3, Vol 168, pp31-64, 2012.
7. Wenhua Cao and Gino J. Lim, “Optimization Models for Cancer Treatment Planning,” Wiley Encyclopedia of Operations Research and Management Science, Wiley Online Library, 14 Jan 2011.
8. Wenhua Cao and Gino J. Lim, “An Introduction to Optimization in Healthcare Delivery,” Handbook of Healthcare Delivery Systems, edited by Yuehwern Yih, Chapter 15, CRC Press, Taylor & Francis Group, 2011.
9. Gino J. Lim, “Optimization Models and Computational Approaches for Three-Dimensional Conformal Radiation Treatment Planning,” Handbook of Optimization in Medicine, Springer-Verlag, edited by PM Pardalos and HE Romeijn, Editors, pp53-82, 2009.
10. Gino J. Lim, “An Introduction to Radiation Therapy Planning Optimization,” Optimization in Medicine and Biology, edited by Gino J. Lim and Eva K. Lee, pp197-221, 2008.
11. Gino J. Lim, “Optimization based Framework for Radiation Therapy,” Chapter 477, Encyclopedia of Optimization, 2nd ed., edited by C.A. Floudas and Panos Pardalos, 2008.
12. Jinho (Gino) Lim and Rashad Zein, “The Digital Imaging and Communications in Medicine (DICOM): Description, Structure and Applications,” Book Chapter: Rapid Prototyping: Theory and Practice, pp 63-86, 2006.
13. Jinho Lim, Michael C. Ferris, and David M. Shepard, "Optimization Tools for Radiation Treatment Planning," Operations Research and Health Care: Handbook of Methods and Applications, Kluwer Publishers, 2004.

SUBMITTED FOR PUBLICATION

1. T.U. Aktas, J. Shi, and G. Lim, “A Climate-Informed Two-Stage Stochastic Framework for Power System Expansion Planning under Transmission Outages,” submitted for publication, *Applied Energy*, May 2026.
2. Zhijie Dong, Y. Zhou, Najmaddin Akhundov, Haowei Yang, and Gino Lim, “Sustainable Urban Logistics: Optimizing Multi-Compartment Fleet Routing for Enhanced Recycling Efficiency,” 1st revision submitted for publication, *Cleaner Logistics and Supply Chain*, April, 2026.
3. … “Predicting and Explaining Spatiotemporal Visitor Flows in the U.S. Transportation Cybersecurity Ecosystem: A Hybrid Deep Learning and Geo-Interpretation Framework", submitted for publication, *The Annals of Regional Science*, April 2026.
4. F. Ezzati, G. Lim, and X. Jiang, “BiR-ADMM: A Riemannian ADMM for Binary Mixed-Integer Optimization,” submitted for publication, *INFORMS Journal on Computing*, April 2026.
5. Jesus Silva-Rodriguez, Xingpeng Li, and Gino Lim, “Decentralized Optimal Energy Management for Networked Local Systems of Multiple Connected Microgrids,” submitted for publication, *Energy Conversion and Economics*, March 2026.

6. Jesus Silva-Rodriguez, Xingpeng Li, and Gino Lim, “Decentralized Networked Microgrid Energy Management via Objective-Based ADMM Decentralized Optimization,” submitted for publication, *Electric Power Systems Research*, March 2026.
7. H.M. Goudarzi, G. Lim, R. Mohan, and W. Cao, “A Semi-Stochastic Gradient Descent Method for Beam Angle Optimization in Intensity Modulated Proton Therapy Treatment Planning,” 1st revision submitted for publication, IISE Transactions on Healthcare Systems Engineering, February 23, 2026.
8. Fariha Torsha, Na Zou, Hongyi Ling, Sirui Ding, Xiaoqian Jiang, Cheryl L. Brown, Hu Xia, and G.J. Lim, "Counterfactual Data Generation for Deceased Donor Heart Transplant Data," submitted for publication, INFORMS Journal on Data Science, January 20, 2026.
9. Yuhao Wang, Songhua Hu, Yunpeng (Jack) Zhang, Gino Lim, Meng Li, and Pengyu Zhu, “The Geography of Transportation Cybersecurity: Visitor Flows, Industry Clusters, and Spatial Dynamics,” submitted for publication, *Applied Geography*, January 20, 2026.
10. R. Mirjalili and G. Lim, “Smooth Approximations of the Floor Function under Gradient Constraints,” submitted for publication, Journal of Optimization Theory and Applications (JOTA), December 23, 2025.
11. R. Mirjalili, G. Lim, and J. Bard, “A branch-and-price method for the mothership scheduling and drone routing problem with time windows,” submitted for publication, *INFORMS Journal On Computing*, December 20, 2025.
12. G. Lim, N. Nouri, and F.K. Torsha, “A Constrained POMDP Approach for Personalized Radiation Treatment Planning for Cancer Patients,” submitted for publication, *Omega*, December 9, 2025.
13. C. Liang, J. Zhang, X. Xu, T.U. Aktas, G.J. Lim, Y. Pan, Y. Wang, J. Dong, J. Shi, “Resilience Quantification and enhancement of coupled electrical and logistical networks within container ports,” submitted for publication, *Sustainable Energy, Grids and Networks*, December 7, 2025.
14. R. Mirjalili, G. Lim, and T. Lee, “Coordinated Mothership Scheduling and Drone Routing Optimization: A Branch-and-Price-and-Cut Approach,” submitted for publication, *INFORMS Journal On Computing*, September 17, 2025.

TECHNICAL REPORTS

1. R. H. Henk, P. Songchitruksa, S. Venglar, and G. Lim, “ Prototype Design for a Predictive Model to Improve Evacuation Operations,” FHWA/TX-11/0-6121-1 under Project grant #0-6121-1, August 2011.
2. Gino J. Lim, Josh Reese and Allen Holder, “Fast and Robust Techniques for Euclidean p-Median Problem with Uniform Weights,” Trinity University, Mathematics Technical Report #107, San Antonio, TX, 2008.
3. A. Holder, G. Lim, and J. Reese, “The Relationship between Discrete Vector Quantization and the P-Median Problem,” Trinity University, Mathematics Technical Report #102, San Antonio, TX, 2007.

4. Gino J. Lim and Jaewon Choi, “A Two-Stage Integer Programming Approach for Optimizing Leaf Sequence in IMRT,” Industrial Engineering Technical Report, IE0707-01, University of Houston, Houston, TX, 2007.
5. Jinho Lim, Michael C. Ferris, and David M. Shepard, "Optimization Tools for Radiation Treatment Planning," Optimization Technical Report 03-01, Computer Sciences Department, University of Wisconsin-Madison, March 2003.
6. D. M. Shepard, L. S. Chin, S. J. DiBiase, S. A. Naqvi, J. Lim, and M. C. Ferris, “An infeasible--interior--point predictor—corrector algorithm for the P_x-geometric LCP", Tech report #112, University of Maryland School of Medicine, Baltimore, Maryland, 2002.

POSTERS

1. A. Loyd, R. Mirjalili, and G. J. Lim, “A Two-Stage Framework for Improving Coordination in the Mothership and Drone Routing Problem,” PEAR NRT Program's Annual Symposium, Northeastern University, April 21, 2026.
2. H Moazami Goudarzi, R Mohan, Zongsheng Hu, Madison Grayson, S Lin, W Cao, G Lim, “An Energy Layer Optimization Approach for Spot Scanning Proton Arc Therapy,” AAPM 2025, Washington DC, July 27-30, 2025.
3. Hadis Moazami Goudarzi, Lewei Zhao, Miaolan Xie, Gino Lim , Xianjin Dai, Lei Xing, Wenhua Cao, “A hybrid 4π-proton arc robust optimization,” AAPM 2025, Washington DC, July 27-30, 2025.
4. H Goudarzi, G Lim, D Grosshans, R Mohan, W Cao, “Including variable RBE in IMPT optimization for pediatric brain cancer patients,” PTCOG Poster Presentation, June 27 – July 2, Miami, FL, 2022.
5. Saba Ebrahimi, Wenhua Cao, Amy Liu, Gino Lim, Steven H. Lin, Radhe Mohan, “Assessment of radiation-induced lymphopenia risks for esophageal patients - Planning study comparing proton and photon therapy,” AAPM2019, San Antonio, TX, July 14-18, 2019.
6. Xuem Bai, Gino Lim, David Grosshans, Radhe Mohan, and Wenhua Cao, “Robust Optimization to Reduce the Impact of Biological Effect Variation From Physical Uncertainties in Intensity-Modulated Proton Therapy (IMPT),” UH Engineering Leadership Board, November 2, 2018.
7. S. Abbasi, M. Barati, and G. J. Lim, “Disaster Management of Power System Restoration Toward a Resilient Smart Grid,” University of Houston - Graduate Research and Scholarship Projects (GRaSP) Day, Houston, TX, November 10, 2017.
8. Maryam Zaghian, Azin Khabazian, Gino Lim, “Radiation Therapy Treatment Planning under Uncertainties: A Chance Constrained Programming Approach,” University of Houston - Graduate Research and Scholarship Projects (GRaSP) Day, Houston, TX, October 30, 2015
9. T. Biobaku, G. Lim, J. Cho, S. Bora, and H. Parsaei, “Sonar Placement for Maritime Surveillance - A Fortification Approach,” University of Houston - Graduate Research and Scholarship Projects (GRaSP) Day, Houston, TX, 30 October, 2015.

10. Jaeyoung Cho, Gino Lim, Taofeek Biobaku, Selim Bora, and Hamid Parsaei. A Stochastic Approach To Liquefied Natural Gas (LNG) Ship Route Planning Model Under Weather Disruptions. Qatar Foundation Annual Research Conference Proceedings: Vol. 1, EEPP0841, Doha, Qatar, November 18, 2014. DOI:10.5339/qfarc.2014.EEPP0841
11. J. Cho, G. Lim, T. Biobaku, S. Bora, and H. Parsaei, “Global LNG supply chain under Shamal disruptions,” University of Houston - Graduate Research and Scholarship Projects (GRaSP) Day, Houston, TX, October 31, 2014.
12. Taofeek Biobaku, Gino Lim, Selim Bora, Jaeyoung Cho, and Hamid R. Parsaei, “Underwater Sonar Placement for Maritime Surveillance,” University of Houston - Graduate Research and Scholarship Projects (GRaSP) Day, Houston, TX, October 31, 2014.
13. Jaeyoung Cho, Gino J. Lim, Taofeek Biobaku, Selim Bora, Hamid Parsaei, “Inventory routing under weather (dust storm) disruptions,” Texas Hurricane Conference, Houston, TX, August 1, 2014.
14. Wenhua Cao, Gino J. Lim, Li Liao, Shengpeng Jiang, Yupeng Li, Kazumichi Suzuki, X. Ronald Zhu, Steven J. Frank, Daniel Gomez, Xiaodong Zhang, Radhe Mohan. "Improving efficiency of IMPT delivery using selected proton energies and scanning spots", PTCOG, Shanghai, China, June 2014.
15. T. Biobaku, G. Lim, S. Bora, S. Ahmadi, H. Parsaei, “'Sonar Placement and Deployment in a Maritime Environment,” QF-ARC-D-13-00888, Doha, Qatar, November 23-24, 2013.
16. Xiaodong Zhang, Yupeng Li, Laleh Kardar, Xiaoqiang Li, Xiaochun Wang, Wenhua Cao, Gino Lim, Heng Li, Falk Poenisch, Richard Amos, Richard Wu, Narayan Sahoo, Michael T. Gillin, and X. Ronald Zhu, "Evaluate and Mitigate the Interplay Effects for IMPT Treatment of Lung Cancers in a Clinical Setting", PTCOG, Essen, Germany, June 2013.
17. Mukesh Rungta and Gino J. Lim, “Minimizing Traffic Congestion During Evacuation,” Texas Hurricane Conference, Houston, TX, August 3, 2012.
18. Reza Baharnemati and Gino Lim, “A Novel Decision Support Tool for Short-Notice Evacuation Planning, DHS Annual Summit,” March 10 – 12, 2010
19. Reza Baharnemati, Gino Lim, and Sharouz Aliabadi, “A Novel Decision Making Tool designed for Short-Notice Evacuation Planning due to Natural Disasters,” March 16-19, 2009.
20. Mario Pozos, Wenhua Cao, and Gino Lim, “Method of Optimizing IMRT Beam Angles and Intensity Profiles,” Rice-Houston Alliance for Graduate Education and the Professoriate, July 17, 2009

INVITED TALKS FOR A KEYNOTE, PLENARY, COLLOQUIUM, OR SEMINAR

1. “Collaborative Truck–Drone Delivery: Optimization Models and Exact Algorithms,” ISE Distinguished Seminar, North Carolina A&T State University, March 24, 2026.
2. “Optimization Meets Learning: Engineering Personalized Radiation Therapy Treatment Planning,” Seminar, Purdue University, September 25, 2025.
3. “Operational Excellence in Industrial & Systems Engineering”, Operational Excellence Workshop, University of Houston, November 21, 2024.
4. “Artificial Intelligence in Manufacturing,” University of Houston AI Symposium, June 7, 2024.

5. “Mothership-based Drone Routing Problems on a Delivery Network via Branch-and-Price-and Cut,” ORIE Graduate Seminar, University of Texas – Austin, April 12, 2024.
6. “Mothership-based Drone Routing Problems and Solution Methods,” ISE Graduate Seminar, University of Illinois – Urbana Champagne, March 29, 2024.
7. “Optimization in Radiation Oncology,” Keynote, IEOM Conference, Houston, TX, June 14, 2023.
8. “A Chance Constrained Programming framework to handle uncertainties in radiation therapy treatment planning,” OR Seminar, University of Southern California, March 28, 2023.
9. “Drone Routing Optimization Considering Battery Duration Limitation,” OR Seminar, Auburn University, February 8, 2023.
10. “Drone Routing Optimization Considering Battery Duration Limitation,” MOP Seminar, Amazon, January 30, 2023.
11. “Drone Routing Optimization Considering Battery Duration Limitation,” OR Seminar, Industrial and Manufacturing Engineering, Penn State, October 4, 2022.
12. “IISE International Member & Partner Benefits,” Plenary Session, International Joint Conference on Industrial Engineering and Operations Management (IJCIEOM), Anahuac Mexico University, Mexico City, Mexico, July 18, 2022.
13. “A Chance Constrained Programming framework to handle uncertainties in radiation therapy treatment planning,” EMIS Seminar, Southern Methodist University, November 20, 2020.
14. “Optimal Scheduling Models and Algorithms for Integrated Microgrids,” Seminar, Industrial and Systems Engineering, University of Tennessee, Knoxville, TN, February 21, 2020.
15. “Drone-aided Healthcare Delivery for Patients with Chronic Diseases in Rural Areas,” Seminar, Industrial and Systems Engineering, SUNY-Buffalo, November 30, 2018.
16. “Drone-aided Healthcare Delivery for Patients with Chronic Diseases in Rural Areas and Uncertain Battery Duration,” Seminar, Industrial and Systems Engineering, University of Southern California, October 30, 2018.
17. “Drones: A new emerging application of Operations Research,” Seminar, Integrated Systems Engineering, Ohio State University, September 6, 2018.
18. “Drones and Operations Research,” Seminar, Industrial Engineering, University of Louisville, April 6, 2018.
19. “Drone Scheduling Optimization: A New Application for Operations Research,” Seminar, Operations Research and Industrial Engineering, the University of Texas at Austin, March 23, 2018.
20. “Operations Research Applications in Drones,” Ingersol-Rand Endowed Lecture Series, Grado Department of Industrial and Systems Engineering, Virginia Tech, Blacksburg, Virginia, February 14, 2018.
21. “Optimization in Operating Room Scheduling,” Guest Speaker, 2nd Annual Harriet and Jerry Dempsey Research Conference, Greenville Health System/Clemson University, Greenville, South Carolina, October 27, 2017.

22. “A Chance Constrained Programming framework to handle uncertainties in radiation therapy treatment planning,” Operations Research Seminar, University of Oklahoma, September 15, 2017.
23. “Challenges and Opportunities in IE Education and Research,” Seminar, University of Michigan, April 11, 2017.
24. “A Chance Constrained Programming framework to handle uncertainties in radiation therapy treatment planning,” Operations Research Colloquium, Pennsylvania State University, October 11, 2016.
25. “Cancer Therapy Planning Optimization using Radiation under Uncertainty,” IEMS Seminar, University of Central Florida, Orlando, FL, April 4, 2016.
26. “Houston, we have a goldmine of opportunities for collaboration,” Invited Speaker, INFORMS Houston Chapter meeting, Chevron Building, Houston, TX, January 20, 2016.
27. “Robust Intensity Modulated Proton Therapy (IMPT) Planning Optimization under Uncertainty,” Seminar, North Carolina State University, March 20, 2015.
28. “Recent Advances in Intensity Modulated Proton Therapy (IMPT) Planning Optimization under Uncertainty,” Operations Research Colloquium, Pennsylvania State University, February 17, 2015.
29. “Engineering Solutions for Fighting Cancer: Recent Advances in Radiation Treatment Planning Optimization,” Seminar, Texas A&M University at Qatar, October 23, 2013.
30. “Building a resilient community in the presence of disasters: Maritime Security, Evacuation Planning and Management,” Seminar, Texas A&M University at Qatar, October 22, 2013.
31. “Radiation Therapy Planning Optimization for Intensity Modulated Proton Therapy under Uncertainty,” Seminar, the University of Texas at Austin, September 6, 2013.
32. “An Overview of Industry Supported Funding,” Doctoral Colloquium, IIE Annual Conference and Expo, May 2013.
33. “Computationally Challenging Optimization Problems in Intensity Modulated Proton Therapy Treatment Planning,” Seminar, Texas A&M University, College Station, TX, March 2013.
34. “Big Data and Large Scale Optimization Problems in Radiation Therapy Planning for Cancer Patients,” Seminar, Tsinghua University, Beijing, China, June 2012.
35. “How to Build Academic Reputation?” Doctoral Colloquium, IIE Annual Conference and Expo, May 2012.
36. “An Optimization Approach in Evacuation Planning,” (Seminar in Civil Engr), University of Houston, TX, February 2011.
37. “Treatment Angle Optimization in Radiation Therapy Planning,” (Seminar), Lehigh University, PA, January 2011.
38. “Treatment Angle Optimization for Intensity Modulated Radiation Therapy Planning,” (Seminar), University of Pittsburgh, PA, October 2009.
39. “Recent Advances in Optimization Methods in Radiation Therapy Planning for Cancer Patients,” (Seminar), Biomedical Engineering Seminar, University of Houston, TX, July 2009.

40. “Two Challenging Optimization Problems in Intensity Modulated Radiation Therapy Planning,” (Seminar), University of Texas – Austin, TX, April 2009.
41. “Current Challenges in Optimizing IMRT Planning for Cancer Patients,” Computational and Applied Mathematics (Colloquium), Rice University, Houston, TX, February 2009.
42. “Optimization Methods in Radiation Therapy Planning for Cancer Patients,” the Penn State University, PA, December 2008 (Seminar).
43. “How to Setup and Sustain a Student/Regional Chapter?” INFORMS Southwest Regional Conference, College Station, TX, April 2008 (Colloquium).
44. "Practical optimization methods for radiation treatment planning," Computational and Applied Mathematics Colloquium, Rice University, Houston, TX, March 2005.
45. "Fully automated planning system for 3D conformal radiotherapy optimization," University of Texas MD Anderson Medical Center, Houston, March 2004 (Seminar).
46. “An optimization approach for Gamma Knife radiosurgery treatment planning,” University of Wisconsin – Madison, 2003 (Seminar).

CONFERENCE PAPERS: ABSTRACT AND PRESENTATIONS (list since 2009)

1. Reza Mirjalili, Gino Lim, and Jonathan Bard, “Mothership-based Drone Routing with Time Windows via a Branch-and-Price-and-Cut Algorithm,” INFORMS Annual Meeting, Atlanta, GA, October 26, 2025.
2. Farzane Ezzati, Gino Lim, and Zhijie Dong, “Equitable Energy Trading for Resilient Community Microgrids: A DRL-L2 Box-ADMM Solution Framework,” INFORMS Annual Meeting, Atlanta, GA, October 26, 2025.
3. Farzane Ezzati, Gino Lim, and Zhijie Dong, “Equitable Energy Trading in Microgrids for Resilience and Cost Efficiency: A DRL-ADMM Solution Framework,” the 2025 IEEE International Communication Energy Conference, Houston, Texas, October 12-15, 2025.
4. T.U. Aktas, G.J. Lim, and J. Shi, “A chance-constrained model for budget allocation decisions to enhance system resilience,” the IISE Annual Conference & Expo 2025, Atlanta, GA, May 31-June 4, 2025.
5. G. Lim, “A brief history of personalized cancer treatment planning using radiation particles: an optimization perspective,” Ferris Fest 2024, Chicago, July 28-29, 2024.
6. H. Moazami1, G.J. Lim, R. Mohan, and W. Cao, “A beam angle optimization approach in intensity-modulated proton therapy considering the biological effect of protons,” the IISE Annual Conference & Expo 2024, May 2024.
7. G.J. Lim, B. Sabzi, and J. Shi, “Power Grid Restoration Optimization Considering Decision Maker’s Risk Tolerance On Parameter Uncertainty,” the IISE Annual Conference & Expo 2024, May 2024.

8. Gino J. Lim, Hyung Jin Park, Reza Mirjalili1, Murray J. Cote, “Scheduling Diagnostic Testing Kit Deliveries with the Mothership and Drone Routing Problem,” INFORMS Annual Meeting, October 15, 2023, Phoenix, AZ.
9. R. Mijalili, G.J. Lim, and T. Lee, “Mothership-Based Drone Routing and Truck Scheduling Using Branch-And-Price-And-Cut,” INFORMS Annual Meeting, October 15, 2023, Phoenix, AZ.
10. Ezra Wari, Weihang Zhu, Gino Lim, Yisha Xiang, “Optimal Maintenance Using a Continuous Partially Observable Markov Decision Process Model for the Oil and Gas Pipeline,” IISE Annual Conference and Expo, May 2023.
11. G.J. Lim, B. Sabzi, J. Shi, S. Abbasi, and M. Barati, “Power Grid Restoration Optimization Considering Decision Maker’s Risk Tolerance On Parameter Uncertainty,” INFORMS Annual Meeting, October 16, 2022, Indianapolis, IN.
12. H. Moazami1, G.J. Lim, R. Mohan, and W. Cao, “A beam angle optimization approach in intensity-modulated proton therapy considering the biological effect of protons,” the IISE Annual Conference & Expo 2022, May 2022.
13. S. Ebrahimi, G. Lim, R. Mohan, and W. Cao, “Radiation-induced lymphopenia risks in esophageal cancer patients treated by proton and photon therapy,” INFORMS Annual Meeting, October 24, 2021, Anaheim, CA.
14. Ebrahimi, S., Lim, G.J., “An Automated Framework For Adaptive Radiation Therapy Considering Biological Uncertainties,” 2020 INFORMS Annual Meeting, November 2020.
15. Ebrahimi, S., Lim, G.J., “Robust Adaptive Approach Incorporating Tumor Shrinkage in Radiation Treatment Planning,” 2020 IISE Annual Conference, November 2020.
16. G.J. Lim, S. Ebrahimi, W. Cao, and L. Kardar, “A Risk-Based Modeling Approach for Radiation Therapy Treatment Planning Under Tumor Shrinkage Uncertainty,” INFORMS Annual Meeting, Seattle, WA, October 23, 2019.
17. M. Torabbeigi, G.J Lim, N. Ahmadian, S. Kim, “Impact of Drone Failures on the Drone Flight Schedule in a Delivery Application of Drones,” INFORMS Annual Meeting, Seattle, WA, October 23, 2019.
18. N. Ahmadian, G.J. Lim, M. Torabbeigi, and S. Kim, “Continuous Border Surveillance Using Drones with a Dynamic Wireless Charging System,” INFORMS Annual Meeting, Seattle, WA, October 22, 2019.
19. M. Najarian, and G.J. Lim, “A Flow-Based Network Robustness Metric,” INFORMS Annual Meeting, Seattle, WA, October 22, 2019.
20. X. Bai, W. Cao, and G.J. Lim, “Optimization of Intensity-modulated Proton Therapy Considering the Biological Effect,” INFORMS Annual Meeting, Seattle, WA, October 21, 2019.
21. N. Ahmadian, G.J. Lim, and J. Cho, “A Unified Approach for Network Resiliency Quantification Assessment and Improvement,” INFORMS Annual Meeting, Seattle, WA, October 20, 2019.
22. Y. Wu, G.J. Lim, and J. Shi, “A Co-Optimization Scheme of Distributed Joint Market with Microgrids,” INFORMS Annual Meeting, Seattle, WA, October 20, 2019.

23. A. Molavi, J. Shi, and G,.J. Lim, “Enabling Smart Ports Through the Integration of Microgrids,” INFORMS Annual Meeting, Seattle, WA, October 20, 2019.
24. N. Ahmadian, G.J. Lim, M. Torabbeigi, and S.J. Kim, “Collision-Free Multi-UAV Flight Scheduling for Power Network Damage Assessment,” 2019 International Conference on Unmanned Aircraft Systems, Atlanta, GA, June 11-14, 2019.
25. Y. Wu, G.J. Lim, and M. Barati, A Co-optimization Scheme of Distributed Joint Market with Microgrids,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May 18-21, 2019.
26. M. Najarian and G. J. Lim, "A Methodology for Infrastructure Resilience Metric Assessment," 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
27. S. Kim and G.J. Lim, “Drone-aided Border Surveillance With An Electrification Line Battery Charging System,” 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
28. S. Kim and G.J. Lim, “A Hybrid Approach For Extending Drone Flight Duration In Real Time,” 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
29. A. Khabazian and G.J. Lim, "Understanding Impacts of Radiobiological Parameters in Adaptive Radiation Treatment Planning under Uncertainty," 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
30. Y. Wu, G.J. Lim, and M. Barati, "Quality of Service Constrained Microgrid Optimal Scheduling", 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
31. A. Najjarbashi and G.J. Lim, “A two-stage stochastic model for the operating room scheduling problem with chance constraints” 2018 INFORMS Annual Meeting, Phoenix, AZ, November 4-7, 2018.
32. Seon Jin Kim, Gino Lim, Maryam Torabbeigi, Navid Ahmadian, “A Rescheduling Method of Drone Flights under Insufficient Remaining Battery Duration,” *2018 International Conference on Unmanned Aircraft Systems (ICUAS 2018)*, Dallas, TX, June 12-15, 2018
33. Maryam Torabbeigi, Gino Lim, Seon Jin Kim, “Drone delivery schedule optimization considering the reliability of drones,” *2018 International Conference on Unmanned Aircraft Systems (ICUAS 2018)*, Dallas, TX, June 12-15, 2018
34. S. Kim and G.J. Lim, “A Probabilistic Optimization Approach for Drone Flight Rescheduling,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May 19-22, 2018.
35. S. Abbasi, G. Lim, and M. Barati, “Robust Optimization on Power System Restoration Following a Hurricane,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May 19-22, 2018.
36. M. Najarian, M. Barati, and G. Lim, “Levelized Resiliency Assessment of Interdependent Natural Gas and Electric Power Systems,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Orlando, FL, May 19-22, 2018.
37. Jeff Daniels, Ben Amaba, and Gino Lim, “Systems Engineering – A Platform of Discipline and Digitization,” TGCC INCOSE, Houston, TX, May 3, 2018

38. S. Kim and G.J. Lim, “A Real-time Drone Reroute Planning Under Uncertain Flight Duration,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
39. A. Khayatian, M. Barati, and G.J. Lim, “Policymaking for Microgrid Expansion Planning in Electric Power Systems under Uncertainty,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
40. A. Najjarbashi and G.J. Lim, “Risk-sensitive Stochastic Surgery Scheduling using CVaR,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
41. W. Cao, A. Khabazian, G. Lim, P. Yepes, D. Grosshans, and R. Mohan, “Incorporating Linear Energy Transfer in the Optimization of Intensity Modulated Proton Therapy,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
42. X. Bai, W. Cao, H-P Wieser, G.J. Lim, and R. Mohan, “Impact of Robust Optimization on Variable Relative Biological Effectiveness in IMPT Dose Distributions,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
43. A. Darvishan, G. Lim, M. Rungta, and M. Reza, “A Robust Chance Constraint Programming Approach for Evacuation Planning under Uncertain Demand Distribution,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
44. A. Khabazian and G. J. Lim, “Optimization of Radiation Therapy Fractionation Dose Considering the Biological Effects,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
45. A. Molavi, G. J. Lim, and B. Race, “A Framework for Building a Smart Port and Smart Port Index,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
46. M. Najarian, M. Barati, and G. J. Lim, “Resilience Assessment of Interdependent Gas Network and Electrical Power System Infrastructures: A Quantitative Approach,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
47. G. J. Lim, G. Kaya, and J. Peng, “IMPT Treatment Planning Optimization Considering RBE and LET,” 2017 INFORMS Annual Meeting, Houston, TX, October 22-25, 2017.
48. S. Kim, G. J. Lim, and J. Cho, “A Robust Optimization Approach for Scheduling Drones Considering Uncertainty of Battery Duration,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Pittsburgh, PA, May 20-23, 2017.
49. Y. Wu, G. Lim, and M. Barati “Optimal Market Based Pool Strategy of Microgrid,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Pittsburgh, PA, May 20-23, 2017.
50. S. Abbasi, M. Barati, and G. J. Lim, “A Multi-objective MPEC Model for Disaster Management of Power System Restoration,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Pittsburgh, PA, May 20-23, 2017.
51. Nasrin Nouri, and G. J. Lim, “Optimal Radiotherapy Treatment Policy Based On Tumor Biological Response: A POMDP Framework,” Institute of Industrial and Systems Engineers (IISE) Annual Conference, Pittsburgh, PA, May 20-23, 2017.
52. A. Khabazian and G. Lim, “CCP Optimization with time-dependent uncertainty in radiation therapy planning,” INFORMS ICS conference, Austin, TX, January 15, 2016.

53. G. Lim, A. Mobasher, J. Bard, and A. Najjarbashi, “A swapping heuristic for daily nurse scheduling in Operating Suites,” INFORMS ICS conference, Austin, TX, January 16, 2016.

54. A. Khayatian, M. Barati, and G. Lim, “Long-term microgrid design in the context of changing policy objectives in power system planning,” INFORMS ICS conference, Austin, TX, January 16, 2016.

55. L. Liao, G. Lim, N. Nouri, and X. Zhang, “A two-stage method for IMPT treatment beam angle optimization incorporating internal organ motion,” INFORMS ICS conference, Austin, TX, January 17, 2016.

56. A. Najjarbashi and G. Lim, “A Lagrangian Relaxation Algorithm For Solving Surgery Scheduling Problem Under Uncertain Durations,” INFORMS Annual Meeting, Nashville, TN, November 16, 2016.

57. S. Abbasi, M. Barati, G.J. Lim, “Resilient Based Power System Restoration On Sectionalized Grid,” INFORMS Annual Meeting, Nashville, TN, November 14, 2016.

58. A. Khabazian, M. Zaghian, G.J. Lim, “Tractable Approximations Of Distributionally Robust Chance Constraints In Radiation Therapy,” INFORMS Annual Meeting, Nashville, TN, November 14, 2016.

59. J. Cho, S. Kim, and G. Lim, “Multiple UAV Assisted Power Network Damage Assessment,” INFORMS Annual Meeting, Nashville, TN, November 14, 2016.

60. A. Khayatian, M. Barati, G.J. Lim, “Essential Aspects Of Power System Resource Planning In Developing Community Of Microgrid,” INFORMS Annual Meeting, Nashville, TN, November 13, 2016.

61. N. Nouri and G. Lim, “Optimal Radiotherapy Treatment Policy Based On Tumor Biological Response: A Partially Observable Markov Decision Process Framework,” INFORMS Annual Meeting, Nashville, TN, November 13, 2016.

62. M. Barati, G.J. Lim, and Y. Wu, “Comprehensive Operation and Self-healing Resilient Strategy for Microgrid,” IISE conference, ID 1214, Anaheim, CA, May 23, 2016

63. M. Zaghian, A. Khabazian, G.J. Lim, “Distributionally robust chance constrained programming in radiation therapy treatment planning,” IISE conference, ID 1040, Anaheim, CA, May 23, 2016

64. M. Barati, S. Abbasi, and G.J. Lim, “A Sectionalizing Strategy of Resilience Assessment in Electric Power Grid Restoration”, IISE conference, ID 1207, Anaheim, CA, May 22, 2016

65. A. Khabatyian, M. Barati, G.J. Lim, “Market-Based Resilient Microgrids Expansion Based on Coordinated Generation and Transmission Planning, IISE conference, ID 1213, Anaheim, CA, May 22, 2016

66. S. Kim, J. Cho, and G. Lim, “Optimal Delivery and Pickup Planning for Patients with Chronic Diseases Using Drones,” 2015 INFORMS Annual Conference, Philadelphia, PA, November 3, 2015.

67. J. Cho, T. Biobaku, S. Kim, and G. Lim, “A Mothership-based UAV Routing Problem in Support of Counterfire Operations,” 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

68. T. Biobaku, J. Cho, S. Kim, G. Lim, and H. Parsaei, "Optimal Sonar Deployment in a Maritime Environment: A Fortification Approach," 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

69. G. Kaya and G. Lim, "Conjugate Gradient Algorithms to Optimize RBE-weighted Dose in Intensity Modulated Proton Therapy," 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

70. S. Lin, J. Bard, and G. Lim, "Benders Decomposition and an LP-based Heuristic for Selecting IMRT Treatment Beam Angles," 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

71. L. Liao, G. Lim, and X. Zhang, "Robust Optimization for Craniospinal Irradiation using Intensity Modulated Proton Therapy," 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

72. M. Zaghian, A. Khabazian, and G. Lim, "A Chance Constrained Programming Approach to Handle Uncertainties in Radiation Treatment Planning," 2015 INFORMS Annual Conference, Philadelphia, PA, November 1-4, 2015.

73. T. Biobaku, G. Lim, J. Cho, H. Parsaei, S. Kim, "Liquefied natural gas ship route planning: A risk analysis approach," the 6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015, Las Vegas, July 2015.

74. J. Cho, G. Lim, T. Biobaku, H. Parsaei, S. Kim, "Safety and security management with Unmanned Aerial Vehicle (UAV) in oil and gas industry," the 6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015, Las Vegas, July 2015.

75. A. Najjarbashi and G. Lim, "Using augmented ε-constraint method for solving a multi-objective operating theater scheduling," the 6th International Conference on Applied Human Factors and Ergonomics (AHFE 2015) and the Affiliated Conferences, AHFE 2015, Las Vegas, July 2015.

76. S. Bora*, G. Lim, T. Biobaku, J. Cho, and H. Parsaei, "Case Studies on Maritime Incidents: A Review," the 2015 Industrial and Systems Engineering Research Conference, #I1069, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

77. J. Cho, G. Lim, and S. Kim, "Use of Unmanned Aerial Vehicle (UAV) for risk monitoring in oil and gas industry," I724, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

78. L. Liao, G. Lim, and X. Zhang, "Robust Optimization in Intensity Modulated Proton Therapy for Craniospinal Irradiation," I728, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

79. M. Zaghian, W. Cao, G. Lim, "Including biological effect in intensity modulated proton therapy planning optimization," I1555, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

80. S. Ge, W. Cao and G. Lim, X. Wang, and R. Mohan, "On two worst case robust optimization methods for IMPT planning," I1027, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

81. S. Bora, G. Lim, T. Biobaku, J. Cho, and H. Parsaei, "Case Studies on Maritime Incidents: A Review," I1069, IIE Annual Conference, Nashville, TN, May 30-June 2, 2015.

82. G Lim and W. Cao, “Optimization Problems in Proton Therapy Treatment Planning,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

83. W. Cao, L. Kardar, and G Lim, “A New Optimization Approach for Multi-objective Radiotherapy Treatment Planning,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

84. G. Kaya, W. Cao, and G. Lim, “A Benders Decomposition Approach for Beam Angle Optimization (BAO) Problem,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

85. J. Cho, T. Biobaku, S. Bora, G. Lim, and H Parsaei, “Robust Liquefied Natural Gas shipping problem under Shamal disruptions,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

86. S. Bora, T. Biobaku, J. Cho, G. Lim, and H Parsaei, “Supply Chain Node Resilience and Importance,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

87. T. Biobaku, S. Bora, J. Cho, G. Lim, and H Parsaei, “Optimal Deployment of Underwater Sonar System,” 2014 INFORMS Annual Conference, San Francisco, November 2014.

88. G.J. Lim, W. Cao, and R. Mohan, “Recent Advances in Intensity Modulated Proton Therapy Treatment Planning Optimization,” the 15th Asia Pacific Industrial Engineering and Management Systems Conference, Jeju, Korea, October 12-15, 2014.

89. G. Lim and L. Ma, “Mutli-Population Parallel Genetic Algorithm BAO in Radiation Therapy Planning,” Abstract ID: I1156, IIE Annual Conference, Montreal, Canada, June 2014.

90. W. Cao, G. Lim, X. Zhang, and R. Mohan “Improving delivery efficiency for proton therapy in inverse treatment planning,” Abstract ID: I297, IIE Annual Conference, Montreal, Canada, June 2014.

91. L. Kardar, G. Lim, J. Peng, W. Cao, and G. Kaya, “Implementation of Gradient Projection Algorithm to Radiation Therapy Treatment Planning,” Abstract ID: I1169, IIE Annual Conference, Montreal, Canada, June 2014.

92. L. Liao, G. Lim, and X. Zhang, “Molecular Dynamics for Beamlet Intensity Optimization in IMPT,” Abstract ID: I1213, IIE Annual Conference, Montreal, Canada, June 2014.

93. G. Kaya, W. Cao, and G. Lim, “A Benders decomposition approach for beam angle optimization problem,” Abstract ID: I1230, IIE Annual Conference, Montreal, Canada, June 2014.

94. T. Biobaku, G. Lim, S. Bora, J. Cho, S. Ahmadi, and H. Parsaei, “Under-water Sonar Placement,” Abstract ID: I1239, IIE Annual Conference, Montreal, Canada, June 2014.

95. M. Zaghian, W. Cao, L. Kardar, G. Lim, W. Liu, R. Mohan, “Comparing linear and nonlinear robust optimization approaches for fluence map optimization problem of IMPT,” Abstract ID: I1392, IIE Annual Conference, Montreal, Canada, June 2014.

96. G. Lim, W. Cao, and L. Kardar, “A Study of the Interplay Effect in Intensity Modulated Proton Therapy for Lung Tumors”, INFORMS Annual Meeting, Minneapolis, MN, October 2013.

97. M Zaghian, G. Lim, W. Liu, and R. Mohan, “Comparing Dose-volume Constraints Satisfaction in Linear and Nonlinear Fluence Map Optimization,” INFORMS Annual Meeting, Minneapolis, MN, October 2013.

98. G. Lim and L. Ma, “Parallel Neighborhood Approach for Radiation Treatment Planning”, INFORMS Annual Meeting, Minneapolis, MN, October 2013.

99. G. Lim and W. Cao, “Selecting Beam Angles in Intensity Modulated Proton Therapy Treatment Planning,” INFORMS Healthcare Conference, Chicago, June 2013.

100. G. Lim and W. Cao, “Recent Developments in Intensity Modulated Proton Therapy Treatment Planning Optimization,” INFORMS Healthcare Conference, Chicago, June 2013.

101. X. Zhang, W. Cao, L. Kardar, Y. Li, and G. Lim, “An Investigation of Effects of Intra-Fraction Motion on Intensity Modulated Proton Therapy Treatment,” INFORMS Healthcare Conference, Chicago, June 2013.

102. S. Bora, H. Parsaei, G. Lim, B. Ozbas, “Maritime Risk Assessment Model: A Simulation Study,” Abstract ID 653, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

103. M. Rungta, G. Lim, and H. Parsaei, “Evacuation planning in situation of distributional uncertainty of demand,” Abstract ID 710, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

104. L. Kardar, G. Lim, W. Cao, and X. Zhang, “The impact of tumor geometrical changes on IMPT treatment plans,” Abstract ID 1151, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

105. M. Zaghian, G. Lim, W. Liu, and R. Mohan, “Incorporating Dose-Volume Constraints in Fluence Map Optimization for Intensity Modulated Proton Therapy,” Abstract ID 1229, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

106. M. Zaghian and G. Lim, “Does the starting condition affect the robustness of intensity-modulated proton therapy plans?” Abstract ID 1289, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

107. W. Cao, G. Lim, and X. Zhang, “Selecting proton energy levels in pencil beam scanning proton therapy,” Abstract ID 1293, IIE Annual Conference, San Juan, Puerto Rico, May 2013.

108. G.J. Lim, M. Akladios, and H.R. Parsaei, “A comparison study for students’ learning between on-line versus in-class formats” World Congress on Engineering Education, Doha, Qatar, January 2013.

109. M. Rungta and G. Lim, “Evacuation Traffic Routing Considering Random Arc Capacity,” INFORMS Annual Meeting, Phoenix, AZ, October 2012.

110. L. Ma and G. Lim, “GPU-based Bounded Variable Simplex Method for Solving Fluence Map Optimization Problem,” INFORMS Annual Meeting, Phoenix, AZ, October 2012 .

111. L. Kardar, G. Lim, and W. Cao, “Impact of Intensity Modulated Proton Therapy Delivery Strategies for Mobile Lung Tumors,” INFORMS Annual Meeting, Phoenix, AZ, October 2012.

112. W. Cao, G. Lim, and X. Zhang, “Impact of Optimization Methods for Spot Scanning Proton Therapy Treatment Planning,” INFORMS Annual Meeting, Phoenix, AZ, October 2012.

113. J. Bard, G.J. Lim, and D. Bivens, "An integer model for scheduling nurses in an operating suite," UT System Systems Engineering in Healthcare Conference: Achieving Transformational Change in Healthcare, Houston, TX, October 2012.

114. "Deliverable optimization incorporating monitor unit constraints for intensity modulated proton therapy treatment planning". AAPM Annual Meeting, Charlotte, NC, July 2012 (w/ X. Li, W. Cao, X. Wang, Y. Li, X. Zhu, N. Sahoo, M. Gillin, and X. Zhang)

115. "An investigation of the impact of spot spacing on plan quality using IMPT optimization incorporating deliverable monitor unit constraints". AAPM Annual Meeting, Charlotte, NC, July 2012 (w/ W. Cao, X. Li, Y. Li, X Zhu, and Z. Zhang)

116. "An optimization framework for intensity modulated proton therapy treatment planning," Euro INFORMS, Vilnius, Lithuania, July 2012 (w/ W. Cao and X. Zhang)

117. "Spot Intensity Optimization for intensity modulated proton therapy treatment planning," INFORMS Beijing, China, June 2012 (w/ W. Cao, X. Li, Y. Li, and X. Zhang)

118. "Radiation Therapy Beam Angle Optimization Methods: A Comparison Study," IIE Annual Conference, Orlando, FL 2012. (w/ Kardar, Cao, and Kerker)

119. "Nurse Scheduling Problem in an Operating Suite: A Heuristic Approach," IIE Annual Conference, Orlando, FL 2012. (w/ Mobasher)

120. "Operating Suite Nurse Scheduling Problem: A Column Generation Approach," IIE Annual Conference, Orlando, FL 2012. (w/ Mobasher)

121. "Learning From Terrorist Networks: Innovative Models for Cancer Discoveries," IIE Annual Conference, Orlando, FL 2012. (w/ McGuire)

122. "An Information-based Rerouting Decision Making Tool for Regional Evacuation," IIE Annual Conference, Orlando, FL 2012. (w/ Barharnemati)

123. "Optimal Clearance Time and Path Generation for Large Evacuation Networks," IIE Annual Conference, Orlando, FL 2012. (w/ Rungta)

124. "Dynamic Facility Location and Relocation Problem in Disaster Response," IIE Annual Conference, Orlando, FL 2012. (w/ Durukan Sonmez)

125. "An Information-based Rerouting Decision Making Tool for Regional Evacuation," INFORMS annual meeting, Charlotte, NC 2011 (w/ M.R. Baharnemati).

126. "Gamma-robust Facility Relocation Problem (Gamma-RFRP)," INFORMS annual meeting, Charlotte, NC 2011 (w/ A.D. Sonmez).

127. "GPU-Based Parallel Algorithm for IMRT Beam Angle Optimization," INFORMS annual meeting, Charlotte, NC 2011 (w/ L. Ma).

128. "Nurse Scheduling Problem in an Operating Suite," INFORMS annual meeting, Charlotte, NC 2011 (w/ A. Mobasher).

129. "Uncertainty Incorporated Beam Angle Optimization in IMPT Treatment Planning," INFORMS annual meeting, Charlotte, NC 2011 (w/ W. Cao).

130. "Nurse Scheduling Problem in Operating Suites," INFORMS Healthcare 2011, Montreal, Canada, 2011.

131. "Nurse Scheduling Problem in an Operating Suite," IIE Annual Conference, Reno, Nevada 2011.

132. “Hurricane Evacuation Planning: A Network Flow Optimization Approach,” IIE Annual Conference, Reno, Nevada 2011.
133. “Beam Angle Selection in Intensity Modulated Proton Therapy Treatment Planning for Prostate Cancer,” IIE Annual Conference, Reno, Nevada 2011.
134. “Robust Nurse Scheduling Problem,” IIE Annual Conference, Reno, Nevada 2011.
135. “Alpha-Robust Facility Relocation Problem,” IIE Annual Conference, Reno, Nevada 2011.
136. “GPU-Based Parallel Algorithm Design and Implementation for IMRT Treatment Planning,” IIE Annual Conference, Reno, Nevada 2011.
137. “GPU-Based Parallel Computational Algorithms for Solving P-Median Problem,” IIE Annual Conference, Reno, Nevada 2011.
138. “Using Beam Angle Optimization to Improve Treatment Plan Quality of Intensity Modulated Proton Therapy (IMPT) for Prostate Cancer,” The American Association of Physicists in Medicine (AAPM), Session No: TU-A-BRB-10, 2011 (w/ W. Cao, Y. Li, and Z. Zhang)
139. “A Beam Angle Optimization Approach for Intensity Modulated Proton Therapy Treatment planning,” INFORMS annual meeting, Austin, TX 2010 (w/ W. Cao)
140. “A Novel Approach to Define Hurricane Evacuation Zones,” INFORMS annual meeting, Austin, TX 2010 (w/ S. Zangeneh)
141. “A Path-Based Optimization Approach for Evacuation Planning using a Column Generation Approach,” INFORMS annual meeting, Austin, TX 2010 (w/ M.R. Baharnemati)
142. “A Two-phase Method for Selecting IMRT Treatment Beam Angles: Branch-and-Prune and Local Search,” INFORMS annual meeting, Austin, TX 2010 (w/ W. Cao)
143. “Facility Location and Relocation Problem (FLRP-U) under Uncertainty,” INFORMS annual meeting, Austin, TX 2010 (w/ A Durukan-Sonmez)
144. “GPU-based Parallel Computing Algorithm Design and Implementation,” INFORMS annual meeting, Austin, TX 2010 (w/ L. Ma)
145. “Nurse Scheduling in an Operating Suite,” INFORMS annual meeting, Austin, TX 2010 (w/ A. Mobasher)
146. “Robust Nurse Scheduling Problem,” INFORMS annual meeting, Austin, TX 2010 (w/ A. Mobasher)
147. “A beam angle optimization approach for 3D Intensity Modulated Proton Therapy treatment planning”, IIE Annual Conference, Cancun, Mexico, 2010.
148. “A mathematical approach to define hurricane evacuation zones,” IIE Annual Conference, Cancun, Mexico, 2010.
149. “An evacuation planning framework: A path-based optimization approach,” IIE Annual Conference, Cancun, Mexico, 2010.
150. “A two-state non-weighted goal programming approach for Nurse Scheduling Problem under consideration of patient demand and shift preferences of nurses,” IIE Annual Conference, Cancun, Mexico, 2010.

151. “Facility location and relocation problem with uncertain future demand,” IIE Annual Conference, Cancun, Mexico, 2010.

152. “A support vector machine approach for predicting heart conditions,” IIE Annual Conference, Cancun, Mexico, 2010.

153. “Comparing the effectiveness and students’ learning in an engineering economy course,” IIE Annual Conference, Cancun, Mexico, 2010.

154. “Optimizing treatment beam angles for Intensity Modulated Proton Therapy (IMPT),” International Conference on Systems Analysis Tools for Better Health Care Delivery: A New Engineering/Health Care Partnership March 24 - 26, 2010, Gainesville, Florida.

155. “A Local Neighborhood Search Algorithm for Optimizing IMRT Beam Angles,” INFORMS annual meeting, San Diego, CA 2009 (w/ W. Cao).

156. “A Novel Decision Making Approach for Large-scale Short-notice Evacuation Planning Problems,” INFORMS annual meeting, San Diego, CA 2009 (w/ S. Zangeneh, M.R. Baharnemati, and T. Assavapokee).

157. “An Optimization Approach for Hurricane Evacuation using a Fixed Flow Rate,” INFORMS annual meeting, San Diego, CA 2009 (w/ S. Zangeneh, M.R. Baharnemati, and T. Assavapokee).

158. “Facility Location and Relocation Problem with Demand Change Under Uncertainty,” INFORMS annual meeting, San Diego, CA 2009 (w/ A.D. Sonmez).

159. “Multi-Objective Nurse Scheduling Problem Under the Consideration of Patient Demand and Nurse Shift preferences,” INFORMS annual meeting, San Diego, CA 2009.

160. “A two-stage solution approach for optimizing IMRT beam angles,” INFORMS-Toronto conference, Toronto, Canada, June 2009.

161. “A sequential solution approach for short notice evacuation scheduling and routing”, IIE annual conference, Miami, FL, June 2009. (With Shabnam Zangeneh, M.Reza Baharnemati, and Tiravat Assavapokee)

162. “A clustering approach for optimizing beam angles in IMRT planning,” IIE annual conference, Miami, FL, June 2009. (With Allen Holder and Joshua Reese).

163. “A Clustering Approach for Optimizing Beam Angles in IMRT planning,” INFORMS ICS conference, Charleston, SC, January 2009.

FUNDED RESEARCH

CURRENT

1) "GULF COAST TEXAS MANUFACTURING ASSISTANCE CENTER (STATE)," 9/1/2025 – 8/31/2027, University of Texas at Arlington / Texas Workforce Commission, $1.4M, Role: Co-PI (50%). OGC-08-19-2025.
2) "MEP CENTER FOR THE STATE OF TEXAS (TMAC) Fed Portion is (000193368) State (000192373)," 7/1/2025-6/30/2026, University of Texas at Arlington / National Institute of Standards and Technology, $850K, Role: Co-PI. 2025GC5371
3) "NRT-FW-HTF-HDR: Platforms for exchange and allocation of resources," 7/15/2023 – 6/30/2028, $413,100, National Science Foundation (#2244340), Role: UH PI.

COMPLETED

1. "BUILDING ENERGY AND TRANSPORTATION RESILIENCE TO FLOODING EVENTS FOR NEAR-PORT COMMUNITIES: A DIGITAL TWIN-ENABLED APPROACH," 5/1/2023-4/30/2026, Gulf Research Program, Role: Mentor to Dr. Jian Shi.
2. "Enhancing Community Energy Resilience Through Solar Energy and Energy Storage Sharing," U.S. Department of Energy – MSI STEM Research & Development, $192,177 (out of total $400K), Role: PI (9/1/2024-5/19/2025). D01_W911SR-14-2-0001- W911SR22F0095 (OR#62)
3. "Beam Angle Optimization Considering LET for Intensity-Modulated Photon and Proton Therapy," Supplement: 12/1/2022 – 11/30/2023, $30,002, MD Anderson Cancer Center, Houston, TX, Role: PI.
4. "DSYNE Digital System Engineering for Energy & Natural Resources," 10/15/2020 – 10/14/2022, NOK 232,000, University of Oslo. Role: UH-PI.
5. "Beam Angle Optimization Considering LET for Intensity-Modulated Photon and Proton Therapy," Supplement: 12/1/2021 – 11/30/2022, $29,825, MD Anderson Cancer Center, Houston, TX, Role: PI.
6. "Optimal sectionalizing devices allocation in Entergy distribution networks: Phase 2," 4/1/2021-12/31/2021, $80,000, Entergy Co., Role: Co-PI.
7. "Beam Angle Optimization Considering LET for Intensity-Modulated Photon and Proton Therapy," 12/1/2020 – 11/30/2021, $30,016, MD Anderson Cancer Center, Houston, TX, Role: PI.
8. "Determining lymphopenia risk factors using intensity-modulated photon and proton therapy data," 9/1/2020 – 8/31/2021, $31,084, MD Anderson Cancer Center, Houston, TX, Role: PI.
9. "Optimal sectionalizing devices allocation in Entergy distribution networks," 1/10/2020-8/30/2020, $79,999, Entergy Co., Role: Co-PI.
10. "Understanding Biological and Physical Factors Affecting Response to Proton Therapy to Improve its Clinical Effectiveness," CPRIT, $879,362, 3/1/2016-2/28/2019, Role: Co-PI. Lead: UT-MD Anderson Cancer Center collaborating with UH and Rice University.
11. "Where will the Permian crude go?," 5/13/2019-6/28/2019, $75,360, HASTINGS EQUITY PARTNERS, Role: Co-PI.
12. "Robust models and computational algorithms for a fully automated intensity modulated proton therapy treatment planning system," Global Oncology One, Inc., Houston, TX, $25,648, 10/1/2015-9/30/2016, PI: Lim (100%).

13. “Mathematical models and computational algorithms considering Relative Biological Effects for IMPT Treatment Planning,” U of Texas MD Anderson Cancer Center, $29,136, 1/16/2016-1/15/2017, PI: Lim (100%).
14. “Smart Channel Initiative: Interdisciplinary Approach to Sustainability and Resilience,” Hobby Center for Public Policy and the Division of Research, A seed grant, $25,000, 1/15/2016-12/31/2016, Team Leader.
15. “Optimization of intensity-modulated proton therapy incorporating physical and biological characteristics of protons,” U of Texas MD Anderson Cancer Center, $90,000, 11/16/2015-11/15/2016, PI: Lim (100%).
16. “Risk Analysis and Efficient Logistics for Maritime Ports and Waterways” Qatar National Research Funds (NPRP 4-1249-2-492), $898,697 ($251,494 UH: PI: Lim (100%)), 3/15/2012 – 1/15/2016. Collaboration with Rutgers Univ. and Texas A&M - Qatar.
17. “Robust Optimization considering Relative Biological Effects for Intensity-Modulated Proton Therapy Treatment Planning,” U of Texas MD Anderson Cancer Center, $10,160, 9/1/2015-1/15/2016, PI: Lim (100%).
18. “Center of Excellence for the Study of Natural Disasters, Coastal Infrastructure and Emergency Management,” Department of Homeland Security, $6M ($898,697 UH: PI: Lim (65%)), 7/01/2008 – 11/30/2015.
19. “Optimization of intensity-modulated proton therapy incorporating physical and biological characteristics of protons,” U of Texas MD Anderson Cancer Center, $136,567, 11/16/2013-11/15/2015, PI: Lim (100%)
20. “Development of computational techniques for intensity modulated proton therapy (IMPT),” Global Oncology One, Houston, TX, $22,184, 10/1/2014-9/30/2015, PI: Lim (100%)
21. “Development of Flood Information Distribution Systems for the Houston TranStar Emergency Response Center,” City of Houston, $400,700, 4/6/2010 – 8/31/2015, PI: Lim (100%).
22. “Four- and Five-Dimensional Robustness Quantification and Adaptive 4D Robust Optimization of Intensity-Modulated Proton Therapy for Lung Cancers,” U of Texas MD Anderson Cancer Center, $55,958, 9/1/2012-8/30/2015, PI: Lim (100%)
23. “Development of an Online Program for a Master of Industrial Engineering Degree with Concentration in Public Safety Management,” FDIP-B grants, University of Houston, $15,000, 9/1/2012 – 8/31/2013, Role: Co-PI (35%)
24. “Prototype Design for a Predictive Model to Improve Evacuation Operations,” Texas Department of Transportation, $340,000 ($80,125 UH PI: Lim (54%)), 2/1/2009 – 1/31/2011, with Texas Transportation Institute. (Project 0-6121)
25. “Multi-purpose, multi-scale storm surge and flood forecasting for planning and preparedness,” US Department of Homeland Security, $1.7M ($193,700 UH: PI (95%)), 12/1/2007 – 11/30/2009, PI: Lim (95%).
26. “A New Program Development for a Bachelor of Science Degree Program in Engineering Management (BSEM),” FDIP-B, University of Houston, $25,000, 9/1/2008 – 8/31/2009, PI: Lim (80%).
27. “A Systematic Approach for Managing Jail Population,” National Institute of Justice and Southwest Technology Center (SWTC), $27,568, 5/15/2008 – 8/31/2008, PI: Lim (100%).
28. “Database Development for Assessing Inventories,” Houston TranStar, Houston, TX, $5,501, 8/1/2009 – 8/31/2009, PI: Lim (100%).

29. “Visiting Personal Entry System Design for TranStar,” Houston TranStar, Houston, TX, $21,065, 9/1/2009 – 1/15/2010, PI: Lim, (100%).
30. “Effective and Innovative Teaching Methods for Online Course,” University of Houston, $25,000, 6/1/2007 – 12/31/2007, Co-PI: Lim (50%).
31. “Collaboration with Industry Grant,” U. of Texas MD Anderson Cancer Center & Varian Medical Systems, Inc., $119,000 as an equipment and software support, 1/1/2005 – 8/31/2007, PI: Lim (100%).
32. “A Framework for Radiation Treatment Planning,” GEAR 2005-2006, University of Houston, $25,196, 9/1/2005 – 8/31/2006, PI: Lim (100%).
33. UH Early Faculty Research Development Grant, University of Houston, $6,000, 6/1/2005 – 8/31/2005, PI: Lim (100%).

MERIT-BASED INSTITUTIONAL GRANTS

1) Houston Endowment Grants, University of Houston, $20,000, 9/1/2011 – 8/31/2012
2) Provost Research Assistantship Grants, University of Houston, $20,000, 9/1/2012 – 8/31/2013

PROPOSALS PENDING

1) “Collaborative Research: Resilient Expansion of Circular E-Waste Recycling and Infrastructure Management (RECLAIM),” National Science Foundation, Role: Co-PI.

REVIEWER FOR THE FOLLOWING FUNDING AGENCIES:

- National Science Foundation (NSF) Panel Reviewer
- The Canadian Institutes of Health Research (CIHR) and the Natural Sciences and Engineering Research Council (NSERC)

REVIEWER FOR THE FOLLOWING JOURNALS, BOOKS, AND CONFERENCE PROCEEDINGS:

- ADCOM (Advanced Computing and Communications)
- Algorithms for Operations Research (Journal)
- Annals of Operations Research (Journal)
- Computers and Industrial Engineering (Journal)
- Computers and Operations Research (Journal)
- Decision Support Systems (Journal)
- European Journal of Operational Research
- Health Care Management Science (Journal)
- ISERC (Industrial and Systems Engineering Research Conference)
- IEEE Transactions on Human Machine System (Journal)
- Industrial and Systems Engineering Review (Journal)
- Industrial Engineering & Management (IEM)
- International Conference on Applied Human Factors and Ergonomics (AHFE)
- International Journal of Data Science (IJDS)
- International Journal of Bioinformatics Research and Applications (Journal)
- International Journal of Modeling and Simulation (Journal)
- International Transactions in Operational Research (Journal)
- Journal for Engineering Optimization (Journal)
- Journal of Computer and Communications (JCC)
- Journal of Global Optimization (Journal)
- Journal of Engineering, Project, and Production Management
- Journal of Industrial Engineering and Management Innovation (JIEMI)
- Journal of Transportation Engineering (Journal)
- Linear Algebra and Its Applications (Journal)
- Management Science
- Mathematical Reviews (Journal)
- Operations Research (Journal)
- Operations Research for Health Care (Journal)
- Operational Research, An International Journal (Journal)
- OR Spectrum (Journal)
- Taylor & Francis (Book)
- Transportation Research: Part E (Journal)

COURSE DEVELOPMENT & TEACHING

TEACHING (Courses Taught at UH):

- INDE 3381 Linear Optimization (undergraduate level)
- INDE 3364 Engineering Statistics II (undergraduate level)
- INDE 6111 Graduate Seminar (graduate level)
- INDE 6372 Advanced Linear Optimization (graduate level)
- INDE 7342 Nonlinear Optimization (graduate level)
- INDE 7340 Integer Programming (graduate level)
- INDE 7397 Tools and Methods for Optimization (graduate level)

NEWLY DEVELOPED PROGRAM(S) at the UNIVERSITY OF HOUSTON

I have developed and successfully established a **MIE degree with concentration in Public Safety Management**. These educational activities are funded by the U.S. Department of Homeland Security and University of Houston's Faculty Development Initiative Program (FDIP) grants.

Program Website: http://e2map.egr.uh.edu/education

- Scholarships of $1,000 each are also given to selected students under this program.
- Nine new elective courses in PSM have been developed and added to the existing Masters in IE course list. Many of these courses are offered online.
- Developed multiple digital storytelling movies for some of these courses: Economics of Disaster (in YouTube): http://www.youtube.com/watch?v=8HJlRmyAQZE

COURSES DEVELOPED/TAUGHT at the UNIVERSITY OF HOUSTON

I have developed three graduate courses, restructured one undergraduate course and one graduate course, and taught the following six courses.

Graduate-Level Courses:

INDE 6111 Graduate Seminar (elective)
INDE 6372 Advanced Linear Optimization (core – restructured)
INDE 7340 Integer Programming (elective – developed)
INDE 7342 Nonlinear Programming (elective – developed)
INDE 7397 Tools and Methods for Optimization (elective – developed)

Undergraduate-Level Courses:

INDE 3381 Linear Optimization (core – restructured)
INDE 3364 Engineering Statistics II
INDE 4398/4399 Senior Honors Thesis/Research

POST-DOCTORAL, GRADUATE, UNDERGRADUATE, and HIGH SCHOOL STUDENT SUPERVISION

Post-doctoral Mentorship: (3)

1. Selim Bora, Ph.D., Texas A&M at Qatar, March 2013 – February 2015. Supply Planning Manager at Şişecam.
2. Wenhua Cao, Ph.D., University of Houston, Houston, TX, Jan 2012 – November 2013. Assistant Professor of Radiation Physics, University of Texas MD Anderson Cancer Center (since 2016).
3. Mary McGuire, Ph.D., University of Texas Health Science Center, Houston, TX, Sep. 2011 – June 2013 (Primary mentor: Dr. Robert Brown (UT)). Previously, Assistant Professor and Director of the Advanced Medical Consulting Group in the UT Health Medical School Department of Pathology & Laboratory Medicine, Houston, TX.

Ph.D. Dissertations:

Graduated Ph.D. students: (34)

1. Hadis Moazami Goudarzi, Ph.D. (May 2026), Optimization strategies in proton treatment planning considering biological effects.
2. Behnam Sabzi, Ph.D. (May 2026), Energy equity and service restoration in power systems via optimization and reinforcement learning under uncertainty.
3. Poria Dorali, Ph.D. (August 2023). "Analytics Approaches to Design Diabetic Retinopathy Screening Policies," Post-doc, **Medical School of South Carolina**, Charleston, SC. Co-Advised with Prof. Taewoo Lee (University of Pittsburgh).
4. Saba Ebrahimi, Ph.D. (August 2021), "Analytical Models and Data-Driven Methods for Radiation Therapy Treatment Planning," **Microsoft**, CA.
5. Ayda Darvishan, Ph.D. (December 2020), "*Emergency Evacuation Planning Problem under Uncertainty in Events*"
6. Navid Ahmadian, Ph.D. (December 2020), *"System Resilience Assessment and Improvement with Applications of Unmanned Aerial Vehicles,"* Operations Research and Data Scientist at **Bayer Crop Science**, St. Louis, MO.
7. Maryam Torabbeigi, Ph.D. (December 2020), "*Drone Scheduling Optimization Considering Capacity and Reliability of Batteries*," Operations Research Scientist/ Data Scientist at **Deccan International,** San Diego, CA.
8. Amirhossein Najjarbashi, Ph.D. (May 2020), "Stochastic Models for the Operating Room Scheduling Problem under Uncertainty," Operations Research Scientist, **FedEx Ground**.
9. Mohammad Najarian, Ph.D. (May 2020), "*Optimizing Infrastructure Resilience under Budgetary Constraint*", Data Science, **The Kraft Heinz**.
10. Anahita Molavi, Ph.D. (May 2020), "*Designing Smart Ports by Integrating Sustainable Infrastructure and Economic Incentives*", **Cardinal Health**, Columbus, OH.
11. Yiwei Wu, Ph.D. (December 2019), "*Optimal Scheduling Models And Algorithms Of Integrated Microgrids*", **Baowu Clean Energy LLC**, China.

12. Xuemin Bai, Ph.D. (December 2019), *"Linear Energy Transfer (LET) - Guided Optimization Incorporating Biological Effectiveness for Intensity-Modulated Proton Therapy,"* Director of Software & Algorithm Department at **Mevion Medical Systems**, China.
13. Nasrin Nouri, Ph.D. (May 2019), *"Fractionated Treatment Planning of Radiation Therapy Considering Biological Response"*, Senior Data Scientist, **McKinsey & Company**, Charlotte, NC
14. Azin Khabazian,Ph.D. (May 2019), *"Radiation Therapy Optimization Considering Setup Uncertainty and Radiobiological Effects,"* **Delta Airlines,** Atlanta, GA.
15. Seon Jin Kim, Ph.D. (December 2018), "An optimization framework for drone operations under constrained battery duration," Department of Defense, **South Korea Military**.
16. Saeedeh Abbasi, Ph.D. (August 2018), "An Optimization Framework for Resilience-based Power Grid Restoration," Senior Data Scientist at **BD**, CA. Received *the best paper award in Energy Systems Division*, IISE, 2018.
17. Aida Khayatian, Ph.D. (May 2018), "Integrated Microgrid Expansion Planning and Policy Making under Uncertainty in Power Electricity Market," Manager, **American Eagle Outfitters,** Chicago, IL.
18. Guven Kaya, Ph.D. (August 2017), "Large Scale Optimization Models and Algorithms in Healthcare Delivery," Sr. Algorithm Developer, SafeRide Health, Austin, TX.
19. Li Liao, Ph.D. (December 2016), "Novel Approaches for High Performance Computing in Intensity Modulated Radiation Therapy," Computational scientist, **U of Texas MD Anderson Cancer Center**, Houston, TX.
20. Taofeek Biobaku, Ph.D. (August 2016), "Risk-based Optimization Models for Maritime Security," Development Specialist, Productivity and Operations Research, **Praxair,** NY.
21. Jaeyoung Cho, Ph.D. (August 2016), "Models and Algorithms in Logistics and Transportation of Unmanned Aerial Vehicles" Assistant Professor, Department of Industrial Engineering, **Prairie View A&M University,** TX.
22. Khaled Eldressi, Ph.D. (May 2016) "A New Approach to Measure Intangibles in Economic Analysis of Advanced Technology Projects," Associate Professor at University of Benghazi. Co-advised with Hamid R. Parsaei (Texas A&M-Qatar).
23. Maryam Zaghian, Ph.D. (December 2015), Dissertation title: Radiation Therapy Optimization Considering Uncertainties and Biological Effects, **U of Texas MD Anderson Cancer Center**, Houston, Texas.
24. Likang Ma, Ph.D. (August 2014), Dissertation title: "Parallel Computational Algorithms for Combinatorial Optimization Problems" **Komatsu Mining**., Gainesville, Florida.
25. Laleh Kardar, Ph.D. (May 2014), Dissertation title: "Radiation Therapy Optimization under Uncertainty for Lung Cancer: Interplay Effects and Tumor Shrinkage," Associate Scientist, **Pros Revenue Management**, Houston, TX.
26. Mukesh Rungta, Ph.D. (May 2013) Dissertation title: "Reliable Route Planning for Emergency Evacuation," Senior Research Scientist, **Airgas**, Houston, TX.
27. Ayse D. Sonmez, Ph.D. (May 2012), Dissertation title: "Facility Location and Relocation Problem: Models and Decomposition Algorithms," Clinical Assistant Professor, **William and Mary**, Williamsburg, VA.

28. Wenhua Cao, Ph.D. Dissertation title: “Optimizing Beam Angles for Radiation Therapy Treatment Planning,” December 2011, Associate Professor, Department of Radiation Physics, The **University of Texas MD Anderson Cancer Center,** Houston, TX.
29. MohammadReza Baharnemati, Ph.D. Dissertation title: A network optimization for emergency evacuation route planning,” December 2011, **Amadeus**., Dallas, TX..
30. Arezou Mobasher, Ph.D. Dissertation title: “Nurse Scheduling Optimization in a General Clinic and an Operating Suite,” August 2011, **Carvana**., Dallas-Fort Worth, TX.
31. Shabnam Zangeneh-Khamooshi, Ph.D. Dissertation title: “An Optimization Approach for a Short Notice Evacuation,” December 2010, **Accenture**, Seattle, Washington.
32. Araby Abdel Rahman, Ph.D. Dissertation title: Start-up Time Reduction for Batch and Continuous Processes Using Optimization,” December 2008. Assistant Professor, Department of Mechanical Engineering, **Helwan University**, Egypt.
33. Jaewon Choi, Ph.D. Dissertation title: “Optimization Models and Iterative Solution Methods for Intensity Modulated Radiation Treatment Planning”, December, 2006. **Bechtel, Co.,** Houston, Texas.
34. Sumeet S. Desai, Ph.D. Dissertation title: “An Optimization Framework for Hazardous Materials Route Selection Problem”, December 2006. **Praxair,** NY.

Current Ph.D. Students:

1. Reza Mirjalili (2020 – present), Dynamic Scheduling Model for Drones
2. Fariha Torsha (2021 – present), Healthcare Optimization
3. Tugce Usulu (2022 – present), Power Systems in Maritime
4. Farzane Ezzati (2022 – present), Community resilience and ADMM
5. Sarah Hosseini (2025 – present), Radiation treatment planning
6. Allyn Loyd (2025 – present), Drone routing optimization

MS Theses: (9)

1. Sepehr Soltani, “Deployment Optimization of Drone Base Stations in Cellular Networks”, August 2022.
2. Hyung Jin Park, “Novel Applications of Optimization Models in Drone Routing and Scheduling,” May 2021. Korea Army, South Korea, May 2021.
3. Sanaz Karamimoghaddam, MS thesis title: “Evaluation of Relative Biological Effectiveness for Proton Therapy,” August 2016.
4. Shaunak Vaigare, MS thesis title: “Flash Flood Warning System and Decision Support Tool for Emergency Management,” December 2011. Employed by **National Hurricane Center**
5. Abhilasha A. Kelkar, MS thesis title: “A Comparison Study on Beam Angle Optimization Methods in Radiation Treatment Planning,” December, 2011
6. Elham Torabi, MS thesis title: “A Genetic Algorithm Approach for an Operating Room Scheduling Problem with Multiple Objectives,” May 2011. Assistant Professor, Computer Information Systems and Business Analytics, **James Madison University**, Harrisonburg, VA.

7. Meng Liu, MS thesis title: “Hurricane Prediction and Damage Estimation using HAZUS-MH and Hurricane Ike Survey,” August 2010.
8. Pooya Tabesh, MS thesis title: “Heart Failure Monitoring, Detection, and Prediction Using Data Mining Techniques,” December 2009. Assistant Professor, **California State University,** Los Angeles, CA.
9. Joshua Reese, MS thesis title: “*Theoretical Aspects of Vector Quantization and Its Applications*,” August 2007. Senior Vice President, **Navy Federal Credit Union**, Washington D.C.

UNDERGRADUATE RESEARCH SUPERVISED:

1. Amanda Herrera, **University of Houston**, September 1 – December 18 2016, Undergraduate Honor’s student
2. Rogelio Fonseca, **University of Houston**, January 22 – May 2014, Undergraduate Honor’s student
3. Carlos Aurelio Mendieta Robles, **Instituto Tecnológico de Toluca, Mexico**, June 2013 – August 2013 (Summer Intern).
4. Rebecca Habib, **University of Houston**, September 1, 2012 – May 2013 (Undergraduate Honor’s student).
5. Mario Pozos, Department of Manufacturing Engineering, **Texas State University**, June 2009 - August 2009 (Summer Intern).

DISSERTATION /THESIS COMMITTEE (since 2015, total over 50 at U of Houston):

1. Tong Li, (In progress) (Ph.D. Dissertation), “Robust sequential decision making: integrating distributional ambiguity and risk-sensitive guarantees in POMDPs and reinforcement learning,” Chair: Yisha Xiang. Industrial and Systems Engineering.
2. Jesus Silva Rodriguez, December 2024, (Ph.D. Dissertation), “Decentralized Co-Optimization of Water and Energy Distribution Systems,” Chair: Xingpeng Li., Electrical and Computing.
3. Ali Al-Azzawi, December 2024, (MS Thesis) “Characterizing and Modeling of Curing, Compressive, Piezoresistivity, and Strength of Smart Cement with Recycled Glass and Plastic Powders,” Chair: Cumaraswamy Vipulanandan, Civil and Environmental Engineering.
4. Tharmakulasingham Kopikah, August 2024, (Ph.D. Dissertation) “Characterizing, Modelling, and Real Time Monitoring of Steel Corrosion in Different Conditions, Cement Stabilized Soils, Contaminated Soils and wastewaters,” Chair: Cumaraswamy Vipulanandan, Civil and Environmental Engineering.
5. Mai Lee, December 2023, “Machine Learning-based Event Data Mining in Healthcare and Manufacturing,” Chair: Ying Lin.
6. Khalad E. Elsayed, December 2023, “Smart ultrafine cement grouts development, characterization, and modeling multiple behaviors and testing the capturing of carbon dioxide (co2) using recycled additives,” Chair: Cumaraswamy Vipulanandan, Civil and Environmental Engineering.
7. Sonal Jain, Summer, 2023, “Probability Risk and Efficiency Analysis of Transportation Infrastructures”. Chair: May Feng

8. Shenglin Peng, May 2023, “Reinforcement Learning with Function Approximation for Manufacturing, Operations and Maintenance of Emerging Technologies”. Chair: May Feng
9. Thamer Alnazzal, December 2022, “Cardiovascular Disease Management Via Rule-based Personalized Lifestyle Recommendation”. Chair: Ying Lin
10. Saurav Sharma, May 2022, “Power Generation Planning Addressing the Critical Issues in Renewable Energy for Carbon Management: Leading the Transition to a Low Carbon World”. Chair: Suresh Khator
11. Shuvam Nandi, MS in Civil Engineering (August 2021), “Real-time monitoring of short-term steel corrosion in cement and soil,” Chair: Dr. Cumaraswamy Vipulanandan.
12. Parth Sanghani, MS in Computer Science (August 2021), “Reinforcement Learning Approach For UH Leduc Poker (UHLPO),” Chair: Dr. Christoph Eick.
13. Guru Panda, Ph.D. (May 2020), “Real-Time Monitoring and Characterization of Smart Cement and Soil with Polymer Modification to Control Gas Leakage and Corrosion,” Chair: Dr. Cumaraswamy Vipulanandan.
14. Krishnathasan Mayooran, MSc (December 2018), “Behavior of polymer grouted sand and polymer modified smart cement with verification of new failure model for concrete,” Chair: Dr. Cumaraswamy Vipulanandan, Defended.
15. Vikhyath Kumar Gattu, MSc, “Characterization of polymer-treated field clays,” Civil Engineering, Chair: Dr. Cumaraswamy Vipulanandan, Defended on December 5, 2017
16. Niousha Amani, Ph.D. (December 2017), “Characterizing and modeling the dynamic responses, gas leakage and contaminations on the behavior of the smart cement composite,” Civil Engineering, Chair: Dr. Cumaraswamy Vipulanandan, Defended on December 4, 2017.
17. Nischal Karthik Mapakshi, MSc, “A scalable variational inequality-based formulation that preserves maximum principles for Darcy flow with pressure-dependent viscosity,” Civil Engineering, Chair: Dr. Kalyana Babu Nakshatrala, Defended on August 4, 2017.
18. Ahmed El Hassani, Ph.D., “Nondestructive Real-Time Interface Bonding Characterization between Fiber Reinforced Polymer Strands and Highly Sensing Cement and Polymer Composite Matrix during Loading and Chemical Degradation,” Chair: Cumaraswamy Vipulanandan, Civil and Environmental Engineering, University of Houston, Defended on August 3, 2017.
19. Niousha Amani, Ph.D. student, “Characterization and modeling the dynamic responses, gas leakage and contamination on the behavior of the smart cement composite,” Civil Engineering, University of Houston. Defended April 26, 2017.
20. Aein Kabazian, “Risk Assessment and Control in Financial Network,” Industrial Engineering, University of Houston. Proposal Defense.
21. Ram Warren, Masters Thesis, “,” Department of Civil Engineering, University of Houston, May 2017.
22. Justin Chang, Ph.D. Dissertation, “Structure-preserving high performance computational methods for transport in porous media,” Department of Civil Engineering, University of Houston, May 2017.
23. Can Xu, Ph.D. Dissertation, “Material degradation due to moisture and temperature,” Department of Civil Engineering, University of Houston, December 2016.
24. Saeid Karimi, Ph.D. Dissertation, “Computational methods for multi-scale temporal problems: Algorithms, analysis and numerical experiments,” Department of Civil Engineering, University of Houston, December 2016.

25. Bahareh Basirat, Ph.D. Dissertation, “Analytical modeling and experimental/numerical verification of drilling, cementing, three phase reactive materials and long term performance of smart cemented oil well,” Department of Civil Engineering, University of Houston, December 2016.
26. Chella Chockalingam, MS thesis, “Detection and Quantification of Corrosion in Steel, Aluminum and Plastic with Nondestructive Electrical Method,” Department of Civil Engineering, University of Houston, December 2016.
27. Yin Shu, Ph.D. Dissertation, “L´evy, Non-Gaussian Ornstein-Uhlenbeck, and Markov Additive Processes in Reliability Analysis,” Department of Industrial Engineering, University of Houston, August 2016.
28. Aram Mohammed Raheem, Ph.D. Dissertation, “Characterizing and Modeling of Ultra-Soft Clay Soil, Filter Cake and Drilling Mud,” Department of Civil Engineering, University of Houston, December 2015.
29. Saeid Amiri, MS thesis, “Leakage and Impact Detection of Subsea Pipelines using Fiber Bragg Grating Sensors,” Department of Civil Engineering, University of Houston, December 2015.
30. Gregory Joseph, Ph.D. Dissertation, “A novel approach to robust design using recent advances in robust and multi-objective optimization methods,” Department of Mechanical Engineering, University of Houston, May 2015.

HIGH SCHOOL STUDENT RESEARCH SUPERVISED:

1. Sarah Akbani and Kiran Akbani, Harmony Science Academy High School, Houston Science Fair and ISWEEP, 2010-2011

SUMMER INTERNSHIP:

1. Ava Stein, “Collaborative parcel delivery of truck and drones,” June 1 – August 15, 2024, A high school student from New Mexico. Now majoring in industrial engineering at Northwestern University.
2. William Stein, “Mathematical optimization methods for treating cancer patients using radiation,” June 1 – August 15, 2022. A high school student from New Mexico. Now attending University of Chicago.
3. Thomas Mounier, “Multi-armed Bandit Problem and Border Patrol using Drones,” A Student Intern from France, June 1 – October 30, 2018. Continued for his MS degree in industrial engineering at Clemson University.

EXTERNAL (NON-UH) DISSERTATION /THESIS COMMITTEE:

1. Binghao Zhang, Ph.D. Dissertation title: “Development of a Knowledge-based Planning Pipeline for Gamma Knife Radiosurgery,” September 3, 2025. University of Toronto, Canada. Thesis Advisor: Prof. Timothy Chan
2. Benjamin Zhen Hong Tham, Dissertation title: “Optimisation Methods for Advanced Gamma Knife Radiosurgery Treatment,” January 8, 2024, University of Toronto, Canada. Thesis Advisor: Prof. Dione Aleman

3. Guillermo Cabrera, Ph.D. Dissertation title: “Combining Mathematical Programming and heuristic methods to solve the Multi Objective Beam Angle Optimisation Problem in Radiation Therapy,” October 2016, The University of Auckland, New Zealand.
4. Hamid Ghaffari, Ph.D. Dissertation title: “Optimization models and techniques for radiation treatment planning applied to Gamma Knife Perfexion,” August 30, 2012. University of Toronto, Canada. Supervisor: Prof. Dione Aleman
5. Arijit Bhattacharya, Ph.D. Dissertation title: “Information Technology (I.T.) application in manufacturing decision making processes,” May 2005, Jadavpur University, India.