

JAEYOUNG CHO

- ACADEMIC EDUCATION **Ph.D. in Industrial Engineering**, University of Houston, 2016
M.E. in Industrial Systems and Information Engineering, Korea University, Seoul, Korea, 2006
B.A. in International Relations, Korea Military Academy, Seoul, Korea, 2000
- EMPLOYMENT **Associate Professor** in Supply Chain Management, (*early tenured*), College of Business, Prairie View A&M University, September 2022 - present
Assistant Professor in Supply Chain Management, College of Business, Prairie View A&M University, August 2019 - August 2022
Assistant Professor, Department of Industrial Engineering (affiliated with : Center for Advances in Port Management), Lamar University, September 2016 - July 2019
Military Officer (Army Major, O-4), March 2000 - August 2012 : served in the United Nations & Multinational Missions (Iraq, Lebanon, and South Korea) and lead/commanded various military organizations
- HONORS AND AWARDS **Prairie View A&M University**
 - Dean's Excellence Award in Research, 2021 and 2022
 - Nominee for the Top Faculty Award, President's Advisory Council, 2019**University of Houston**
 - Outstanding Teaching Assistant Award, 2016
 - Industrial Engineering Chair Leadership Award, 2016
 - Industrial Engineering Agrawal Scholarship, 2015**Republic of Korea Army**
 - The Army Commendation Medal, US Department of the Army, 2012
 - Letter of Commendation, United Nations Command, 2012
 - United Nations Peacekeeping Medal, United Nations Headquarters, 2010
 - Best Master Thesis Award, Republic of Korean Army Headquarters, 2006
- RESEARCH INTERESTS **Prescriptive Analytics: Mathematical Optimization and its Application in Supply Chain Management, including Drone-assisted Service Delivery, Production-Inventory-Shipping Planning, and Defense Logistics Modeling & Simulation.**
- PUBLICATIONS ([Link to Google Scholar Profile](#))
 - [1] **Cho, J.**, Hur, M., Lim, G., Craig, B. (2022). A Novel Port Call Optimization Framework: A Case Study of Chemical Tanker Operations. **Applied Mathematical Modelling**.
 - [2] Kim, Y., **Cho, J.**, Han, S., Cho, N. (2022). Weapon Target Assignment Model for Small Unit Ground Combat Using Mixed Integer Nonlinear Program and Lagrangian Relaxation. **Mathematical Problems in Engineering**.
 - [3] Cho, N., Moon, H., **Cho, J.**, Han, S., Pyun, J. (2022). A Framework for Determining Required Operational Capabilities: A Combined Optimization

and Simulation Approach. **Journal of Defense Management**.

- [4] Hur, M., Joo, S., & **Cho, J.** (2021). Performance Measure of Maintenance Practice for F-16 Fighter Jets by DEA. **International Journal of Quality & Reliability Management, ABDC (B)**.
- [5] Ahmadian, N., Lim, G., **Cho, J.**, & Bora, S. (2020). A Quantitative Approach for Assessment and Improvement of Network Resilience. **Reliability Engineering and System Safety, ABDC (A)**.
- [6] Kim, D., Baek, S., Kim, S., **Cho, J.**. (2019). Big-Data and Infographics applications in the military sector. **Defense and Technology**.
- [7] Kim, J., **Cho, J.**, & Park, N. (2019). Blockchain-based CCTV image Forgery Verification Mechanism. **The Journal of Korean Institute of Information Technology**.
- [8] **Cho, J.**, Lim, G., & Kim, S. (2018) Liquefied Natural Gas Inventory Routing Problem under Uncertain Weather Conditions. **International Journal of Production Economics, ABDC (A*)**.
- [9] Lim, G., **Cho, J.**, Bora, S., Biobaku, T., & Parsaei, H. (2018). Modeling and Computational Algorithms for Maritime Risk Analysis: A review. **Annals of Operations Research, ABDC (A)**.
- [10] Rahimikelarijani, B., Abedi, A., Hamidi, M., & **Cho, J.** (2018). Simulation modeling of Houston Ship Channel vessel traffic for optimal closure scheduling. **Simulation Modelling Practice and Theory**.
- [11] Kim, S., Lim, J., & **Cho, J.** (2018). Drone Flight Scheduling Under Uncertainty on Battery Duration and Air Temperature. **Computers & Industrial Engineering, ABDC (A)**.
- [12] Kim, S., Lim, J., **Cho, J.**, & Cote, M. (2017). Drone-Aided Healthcare Services for Patients with Chronic Diseases in Rural Areas. **Journal of Intelligent and Robotic Systems**.
- [13] Lim, G., Kim, S., **Cho, J.**, Kong, Y., & Khodaei, A. (2016). Multi-UAV Pre-positioning and Routing for Power Network Damage Assessment. **IEEE Transactions on Smart Grid**.
- [14] Biobaku, T., Lim, G., Bora, S., **Cho, J.**, & Parsaei, H. (2016). An optimal sonar placement approach for detecting underwater threats under budget limitations. **Journal of Transportation Security**.
- [15] Biobaku, T., Lim, G., **Cho, J.**, Bora, S., & Parsaei, H. (2015). Literature survey on underwater threat detection. **Transactions on Maritime Science**.
- [16] **Cho, J.**, Lim, G., Biobaku, T., Bora, S., & Parsaei, H. (2014). Liquefied Natural Gas Ship Route Planning Model Considering Market Trend Change. **Transactions on Maritime Science**.

- [17] **Cho, J.** (2005). A Two-Stage Stochastic Approach to the Artillery Fire Sequencing Problem. **Military Operations Research Society of Korea.**
- [18] **Cho, J.** (2005). The Impact of Information-Centric Force Improvements on Deterrence of Invasion: A Game - Theoretic Analysis. **Military Operations Research Society of Korea.**
- CONFERENCE PUBLICATIONS [19] **Cho, J.** (2020). A Novel Optimization Framework for Chemical Tanker Operations. Texas Hurricane Center Conference 2020.
- [20] **Cho, J.** (2019). Port of Houston Operational Issues: optimizing chemical tanker movements on the Houston ship channel. Texas Hurricane Center Conference 2019.
- [21] Fafiolu, O., **Cho, J.**, Hamidi, M. (2018). Railtrack Geometry Reliability Model based on Physics of Failure. Texas Hurricane Center Conference 2018.
- [22] **Cho, J.**, Hamidi, M., Tokgoz, B. (2017). Advanced Port Risk Management. Texas Hurricane Center Conference 2017.
- [23] Rahimikelarijani, B., Abedi, A., Hamidi, M., & **Cho, J.** (2017). Optimal Ship Channel Closure Scheduling for a Bridge Construction. IIE Annual Conference Proceedings 2017.
- [24] Kim, S., Lim, G., **Cho, J.** (2017). A Robust Optimization Approach for Scheduling Drones Considering Uncertainty of Battery Duration. IIE Annual Conference Proceedings 2017.
- [25] Kim, S., Lim, G., **Cho, J.** (2017). Drone Replay Stations for Supporting Wireless Communication in Military Operations. AHFE 2017.
- [26] **Cho, J.**, Lim, G., Kim, S., Gong, Y., & Khodaei, A. (2016). Multi-UAV Assisted Power Network Damage Assessment. Institute for Operations Research and the Management Sciences Annual Conference, Nashville, Tennessee.
- [27] **Cho, J.**, Lim, G., Biobaku, T., Bora, S., & Parsaei, H. (2014). Liquefied Natural Gas (LNG) inventory routing problem under weather disruptions: a case study of dust storm in the Persian Gulf. Texas Hurricane Center Conference 2014.
- [28] Biobaku, T., Lim, G., **Cho, J.**, Bora, S., & Parsaei, H. (2014). Under-water Sonar Placement. ISERC 2014.
- [29] Biobaku, T., Lim, G., **Cho, J.**, Bora, S., & Parsaei, H. (2014). Optimal Deployment of Underwater Sonar System. Institute for Operations Research and the Management Sciences Annual Conference, San Francisco, California.
- [30] Bora, S., Lim, G., Biobaku, T., **Cho, J.**, & Parsaei, H. (2014). Supply Chain Node Resilience and Importance. Institute for Operations Research and the Management Sciences Annual Conference, San Francisco, California.

- [31] **Cho, J.**, Lim, G., Kim, S., & Biobaku, T. (2014). Robust Liquefied Natural Gas Shipping Problem under Shamal Disruptions. Institute for Operations Research and the Management Sciences Annual Conference, San Francisco, California.
- [32] Bora, S., Lim, G., Biobaku, T., **Cho, J.**, & Parsaei, H. (2014). Assessing the resiliency and importance of a supply chain network. CIE44 & IMSS'14 Conference, Istanbul, Turkey.
- CONFERENCE TALKS / INVITED TALKS [33] **Cho, J.** (2021). Defense Robot Research and Development International Collaboration in the case of the United States. Military Robotics Society Webinar series 3.
- [34] **Cho, J.** (2020). How to Fight in the Era of Unmanned Warfare. Korea Military Academy, Seoul, South Korea.
- [35] Fafiolu, O., **Cho, J.**, Hamidi, M. (2018). Physics-of-failure Based Reliability Prediction Model for Rail Track Geometry. Institute for Operations Research and the Management Sciences Annual Conference, Phoenix, Arizona.
- [36] **Cho, J.** (2018). Chemical Tanker Optimization on the Houston Ship Channel. Greater Houston Port Bureau Efficiency Committee Meeting, Houston, Texas.
- [37] **Cho, J.** (2018). Analysis of Information Capability for Strengthening War Deterrence on the Korean Peninsula, The 19th ROK-US Defense Analysis Exchange, Seoul, South Korea.
- [38] **Cho, J.** (2017). Available Resources in Crisis Management. Center for Advances in Port Management Industrial Workshop: Critical Issues in Crisis Management in Southeast Texas, Beaumont, Texas.
- [39] **Cho, J.**, Hamidi, M., Tokgoz, B. (2017). Utilization of UAVs in Port Operations – Chemical Tanker Routing in Houston Ship Channel. Institute for Operations Research and the Management Sciences Annual Conference, Houston, Texas.
- [40] Na. H., **Cho, J.**, Son, Y. (2017). An efficient Power Network Damage Assessment via UAVs under Uncertain Environments. Institute for Operations Research and the Management Sciences Annual Conference, Houston, Texas.
- [41] **Cho, J.**, Lim, G., & Kim, S. (2015). Use of Unmanned Aerial Vehicle (UAV) to aid healthcare delivery service. Industrial and Systems Engineering Research Conference, Nashville, Tennessee.
- [42] **Cho, J.**, Lim, G., Biobaku, T., & Parsaei, H. (2015). Use of Unmanned Aerial Vehicle (UAV) for risk monitoring in the oil and gas industry. Industrial and Systems Engineering Research Conference, Nashville, Tennessee.
- [43] **Cho, J.**, Lim, G., & Kim, S. (2015). A Mothership-based UAV Routing Problem in Support of Counterfire Operations. Institute for Operations

Research and the Management Sciences Annual Conference, Philadelphia, Pennsylvania.

- [44] Kim, S., Lim, G., & **Cho, J.** (2015). Optimal Delivery and Pickup Planning for Patients with Chronic Diseases using Drones. Institute for Operations Research and the Management Sciences Annual Conference, Philadelphia, Pennsylvania.
- [45] Biobaku, T., Lim, G., **Cho, J.**, Parsaei, H., & Kim, S. (2015). Optimal Sonar Deployment in a Maritime Environment: A Fortification Approach. Institute for Operations Research and the Management Sciences Annual Conference, Philadelphia, Pennsylvania.

TEACHING
EXPERIENCE

Prairie View A&M University, **Fall 2019 to present**

**The evaluation scores (eval.) displayed are the most recent ones.*

- MGMT 4544 **ERP Applications in Supply Chain** (eval. 4.75/5.00)
- MGMT 4333 **Production & Operations Management** (eval. 4.63/5.00)
- MGMT 5344 **Operations Management** (eval. 4.50/5.00)
- MGMT 4323 **Supply Chain Management** (eval. 4.89/5.00)
- SCMG 4343 **Purchase Management** (eval. 4.65/5.00)
- EDDBA 7326 **Business Analytics** (eval. 5.00/5.00)

Lamar University, Beaumont, TX

Fall 2016 to Spring 2019

- INEN 2360 **Computer Applications in Industrial Engineering (Python Programming)**
- INEN 5301 **Applied Operations Research**
- INEN 4315 **Industrial Management**
- INEN 2373 **Engineering Economics**
- ENGR 4301 **Logistics** (online)
- INEN 5309 **Strategic & Master Facility Planning**
- INEN 5308 **Port Security & Resilience Planning**

University of Houston,

Fall 2013 to Spring 2016

- INDE 3381 **Linear Optimization**

ADVISING AND **Graduate Research**
MENTORING

- **Oluseye Fafiolu**, Doctoral Student, Industrial Engineering, 2016-2019
- **Behnam X Rahimikelarijani**, Doctoral Student, Industrial Engineering, 2016-2019
- **Zeina Bousaid**, Doctoral Student, Industrial Engineering, 2016-2018
- **Ninad Chandubhai Babariya**, Master Student, Industrial Engineering, 2019

Undergraduate Research

- **Eric Dorsey, Victor Guajardo, Derek Inoma, Jonathan Miller, and Dalton Ouzts**
Undergraduate students in Industrial Engineering, Lamar University. Implementing 5S to a Marine Fabrication & Manufacturing Corporation, 2019
- **Nadiya Kulibaba, Nikita Lis, and Fatih Omeroglu:** first place in the senior design project competition
Undergraduate students in Industrial Engineering, Lamar University. Truck Delivery Scheduling and Routing at FedEx, 2018

GRANTS

- [1] **(Funded)** Principal Investigator, “Large-scale chemical tanker traffic optimization on the Houston Ship Channel”, Center for Advances in Port Management, \$20,000, April 2019 to July 2019.
- [2] **(Funded)** Principal Investigator, “A study on innovative port system: utilization of unmanned aerial systems in port operations”, Center for Advances in Port Management, \$35,000, February 2017 to February 2018.
- [3] **(Funded)** Co-Principal Investigator, “A Reliability-Centered Track Geometry Maintenance Methodology for Railroad: A BNSF Case Study”, Center for Advances in Port Management, \$35,000, February 2017 to February 2018.
- [4] **(Not Funded)** Co-Principal Investigator, “An Integrated and Data-driven Solution to Enable Sustainable and Resilient Smart Ports”, National Science Foundation, \$2,000,000, September 2020 to August 2025.
- [5] **(Not Funded)** Co-Principal Investigator, “Cross Border Threat Screening and Supply Chain Defense Center of Excellence”, Department of Homeland Security, \$35,000,000, February 2018 to January 2028.
- [6] **(Not Funded)** Co-Principal Investigator, “United States Air Force University-affiliated Research Center”, Department of Defense, \$1,205,811, February 2023 to January 2028.

COMPUTER SKILLS

Programming: proficiency in GAMS, CPLEX, Python programming, LINGO/LINDO
Applications: extensive knowledge and use of ERPsim (SAP) simulator, LaTeX, and Microsoft Office series

PROFESSIONAL MEMBERSHIPS

Military Robotics Society, Member, 2021–present
Military Operations Research Society (MORS), Member, 2020–present
Institute for Operations Research and the Management Sciences (INFORMS), Member, 2014–present