

AICHIH JASMINE CHANG

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Academic Appointment

New Jersey Institute of Technology, Martin Tuchman School of Management (Newark, NJ)
Assistant Professor 8/2019-Present

Hong Kong University of Science and Technology (Hong Kong, China)
Visiting Scholar 8/2023 & 6/2024

Rutgers Business School, RBS (Newark, NJ)
Instructor 9/2018-12/2018
Teaching Assistant 9/2015-5/2019

Education

Dept. of Supply Chain Management, Rutgers Business School, Rutgers
Ph.D. in Management 10/2019

Rutgers Business School, Rutgers University, the State University of New Jersey
Master of Business Administration (MBA) 5/2009
Concentration: Finance and Supply Chain Management.

Shanghai University of Finance & Economics (Shanghai, China) 1/2006
Master of Arts, Concentration: International Economics

National Chengchi University (Taipei, Taiwan) 6/2003
Bachelor of Arts, Dual Concentrations: Economics and Russian

Professional Certificates

- [1] *Certified in Production and Inventory Management (CPIM)*
- [2] *Solution Consultant my SAP ERP - Integration of Business Process*
- [3] *CITI Responsible Conduct of Research (RCR) and Human Subject Research (HSR)*

Research Interest

Agricultural and Food Supply Chain
Technology for Supply Chain (e.g., AI, Blockchain, IoT, AR/VR)
Healthcare Operations Management & Information Technology
FinTech

Journal Publication

- [1] Z. Li, **A. Chang**, J. Shi, J. Wang, "Coordination Schemes for Resource Reallocation and Patient Transfer in Hospital Alliance Models", *Decision Sciences (DSJ)*, 2025, 56(1), 71-92.

ABDC Ranking: A*

- [2] W. Wang, Z. Wang, H. Zhang, **A. Chang**, J. Shi, "IoT-driven Dynamic Replenishment of Fresh Produce in the Presence of Seasonal Variations: A Deep Reinforcement Learning Approach Using Reward Shaping", *Omega, the International Journal of Management Science*, 2025, 134,

103299.

ABDC Ranking: A

- [3] Z. Li, **A. Chang***, “Competition and coordination between traditional and internet hospitals”, *Annals of Operations Research (ANOR)*, 2024, Nov 6: 1-51.

Correspondence Author; ABDC Ranking: A

- [4] **A. Chang**, F. Zhou, N. El-Rayes, J. Shi, “Food transportation and price impacted by diesel price and truck-driver shortage pre-, amid and post pandemic”, *Transportation Research Part E: Logistics and Transportation Review*, 2024, Volume 192, 103794, ISSN 1366-5545.

Lead Author; ABDC Ranking: A*

- [5] F. Zhou, **A. Chang**, J. Shi, “How the Economic Policy Uncertainty (EPU) impacts FinTech: The implication of P2P lending markets”, *Finance Research Letters*, 2024, 106268, ISSN 1544-6123.

ABDC Ranking: A

- [6] M. Mohammadi, G. Assaf, R. H. Assaad, **A. Chang**, “An Intelligent Cloud-Based IoT-Enabled Multimodal Edge Sensing Device for Automated, Real-Time, Comprehensive, and Standardized Water Quality Monitoring and Assessment Process Using Multisensor Data Fusion Technologies”, *ASCE J. Comput. Civ. Eng.*, 2024, 38(6): 04024029.
- [7] R. H. Assaad, M. Mohammadi, **A. Chang**, “An IoT-Enabled Sensing Device to Quantify the Reliability of Shared Economy Systems Using Intelligent Sensor Fusion Building Technologies”, *Buildings* 2023, 13, 2182.
- [8] N. El-Rayes, **A. Chang**, J. Shi, “Plastic Management and Sustainability: A Data-Driven Study”, *Sustainability* 2023, 15, 7181.
- [9] Z. Li, **A. Chang***, Z. Zou, “Mechanism Design to Coordinate Hierarchical Healthcare Services: Capacity Investment vs. Patient Subsidy”, *Omega, the International Journal of Management Science*, Volume 118, Article 102852, 2023.

Correspondence Author; ABDC Ranking: A

- [10] J. Wang, J. Shi, Z. Dai, **A. Chang**, H. Liu, “Robust Surgical Scheduling for Non-Operating Room Anesthesia (NORA) under Surgical Duration Uncertainty”, *Decision Sciences (DSJ)*, 55(3), 262-280, 2024.

ABDC Ranking: A*

- [11] **A. Chang**, N. El-Rayes, J. Shi, “Blockchain Technology for Supply Chain Management: A Comprehensive Review”, *FinTech*, 2022, 1(2), 191-205.
- [12] Z. Dai, J. Wang, and **A. Chang**, “Surgical scheduling by Fuzzy model considering inpatient beds shortage under uncertain surgery duration”, *Annals of Operations Research (ANOR)*, 2022 Mar 22:1-43.

ABDC Ranking: A

- [13] P. Ouyang, J. Wang, **A. Chang**, “Patients need emotional support: Managing physician disclosure information to attract more patients”, *International Journal of Medical Informatics*, Volume 158, February 2022, 104674.
- [14] **A. Chang**, M.N. Katehakis, J. Shi and Z. Yan, “Blockchain-Empowered Newsvendor Optimization”, *International Journal of Production Economics*, Volume 238, August 2021, 108144.

Lead Author; ABDC Ranking: A

- [15] U. Ali, Y. Li, J. Wang, X. Yue, **A. Chang**, “Dynamics of Outward FDI and productivity spillovers in logistics services industry: Evidence from China”, *Transportation Research Part E: Logistics and Transportation Review*, Volume 148, April 2021, 102258.

ABDC Ranking: A*

- [16] J. Wang, Z. Li, J. Shi, **A. Chang**, “Capacity Reallocation via Sinking High-Quality Resource in a Hierarchical Healthcare System”, *Annals of Operations Research (ANOR)*, 300, 97–135 (2021).

ABDC Ranking: A

- [17] J. Wang, Z. Li, J. Shi, **A. Chang**, “Hospital referral and capacity strategies in the two-tier healthcare systems”, *Omega, the International Journal of Management Science*, Volume 100, Article 102229, 2021.

ABDC Ranking: A

- [18] C. Fang, H. Lu, Y. Hong, S. Liu, **A. Chang**, “Dynamic Pricing for Electric Vehicle Extreme Fast Charging”, *IEEE Transactions on Intelligent Transportation Systems*, Volume: 22, Issue: 1, Jan. 2021, p. 531-541.

ABDC Ranking: A

- [19] J. Shi, Y. Zhao, K. Kiwanuka, and **A. Chang**, “Optimal Selling Policies for Farmer Cooperatives”, *Production and Operations Management Society (POMS)*, Volume 28, No. 12, pp. 3060-3080, 2019.

ABDC Ranking: A*; Among Business Week's 20 Premier Journals; Among Financial Times (FT) Research's 50 Premier Journals.

- [20] **A. Chang** and H. Lu, “Stock-Out Risk of the Production/Inventory Systems with Compound Poisson Demands”, *Omega, the International Journal of Management Science*, Volume 83, 181-198, 2019.

Lead Author; ABDC Ranking: A*

- [21] **A. Chang** and J. Shi, “Pricing American Options via Transform-Expand-Sample (TES) Forecasting Method”, *Journal of Business and Economics*, Volume 7, No. 11, pp. 1756-1763, 2016.

Lead Author; ABDC Ranking: B

- [22] J. Shi, and **A. Chang**, “Revenue and Duration of Oral Auction”, *Journal of Service Science and Management*, Vol. 2, No. 4, Dec. 2009.

Conference Proceeding Publication

- [1]. N. El-Rayes, **A. Chang**, J. Shi, “From Waste to Wealth: A Future Paradigm for Plastic Management Using Blockchain Technology”, 2023 54th DSI Annual Conference, Atlanta, GA.

DSI Best Conceptual Research Paper Award, 2023

- [2]. M. Mohammadi, R. H. Assaad, **A. Chang**, “An Intelligent IoT Device for Real-Time Cloud-Based Tracking of the Terms of Service in Smart Cities “, i3CE, June 25-28, 2023, Corvallis, Oregon.

- [3]. X. Chen, C. Fang, **A. Chang**, Y. Yang, Y. Hong, and H. Lu, “Chinese Address Standardization via Hybrid Approach Combining Statistical and Rule-Based Methods”, 39th International Conference on Information Systems, 2019.

ISAP Excellent Paper Award, 2018

Book Chapters

- [BC1]. J. Shi and **A. Chang**, “Blockchain and Newsvendor”, in “Encyclopedia in Operations Management”, Editor Tsan-Ming (Jason) Choi, forthcoming, 2025 [Peer Reviewed Chapter].

- [BC2]. **A. Chang**, N. El-Rayes and J. Shi, “Blockchain Technology Toward a Circular Economy: A Future Paradigm” in Springer Book "Circular economy and Sustainable Development: a necessary nexus for a sustainable future", pp 335-351, Springer International Publishing, Oct. 23, 2024. [Peer Reviewed Chapter].

Research Grant

Federal Grants

- [1]. USDA, Co-PI, “Impact of Rising Diesel Prices and Truck Driver Availability on Food Transportation and Distribution”, 2022-2024, \$74,393.
- [2]. USDA, PI, “Understanding the Impact of the Transportation Network on Food Distribution in Rural and Urban areas”, 2021, \$57,343.
- [3]. NJIT NSF I-Corps, Technical Lead, “Empowering Molecular Discovery: A Graph Neural Network Approach with Explainable AI”, 2024, \$3,000.

Other Research Grants

- [4]. NJIT NCE Faculty Seed Grant, Co-PI, “Developing a Carbon Dioxide (CO₂) Reduction System to Strengthen Human-Centric Indoor Environmental Awareness and Improve Sustainability by Integrating Autonomous Robotics, Digital Twins, and Mobile IoT-based Smart Sensing Technologies”, 2024, \$10,000.
- [5]. NJIT MTSM LRI Faculty Seed Grant, Co-PI, “Integrating Augmented Reality and Haptic Technologies: Towards Smart Design and Training Practices to Improve Customer Satisfaction and Experience”, 2023, \$4,500.
- [6]. NJIT RETDIC Faculty Seed Grant, Co-PI, “An Intelligent Cloud-Based IoT System for Automated Water Quality Assessment and Leak Detection in Smart Real Estate Facilities”, 2023, \$10,000.
- [7]. NJIT MTSM LRI Faculty Seed Grant, PI, “Plastic Recycling Supply Chain Driven by Data Science and Blockchain Technology”, 2022, \$10,000.
- [8]. NJIT RETDIC Faculty Seed Grant, Co-PI, “An Intelligent and Dynamic-Pricing IoT Prototype to Improve the Reliability of a Shared Economy System: Towards Smart Real Estate”, 2022, \$10,000.

Conference and Invited Presentations

- [1]. “Plastic Recycling Driven by Blockchain: ESG Optimization and Implications”, 2025 POMS Annual Conference, Atlanta, GA, May 8-12, 2025.
- [2]. “The Impact and Implication of Bag Tax Policies on Sustainable Operations: A System Dynamics Approach”, 2025 POMS Annual Conference, Atlanta, GA, May 8-12, 2025.
- [3]. “Transportation Issues Affecting Fresh Food Distribution: A Comparison Study of Urban vs Rural United States”, TRB 2025 Annual Meeting, Washington, DC, Jan. 5-9, 2025.
- [4]. “Food on the Way: Food Price Factored by Transportation amid the COVID-19 Pandemic”, 2024 DSI Annual Conference, Phoenix, AZ, Nov. 23-25, 2024.
- [5]. “SCGNN: Forecasting Food Prices with Constructed SC Graph and Adopted GNN Model”, 2024 INFORMS Annual Meeting, Seattle, WA, Oct. 20-23, 2024.
- [6]. “Blockchain-as-a-Service in Supply Chain: Optimal Adoption for Matching Random Supply with Uncertain Demand”, ICSS 2024 Conference, Macau, China, Jun. 22-24, 2024.
- [7]. “Impact of Rising Diesel Prices and Truck Driver Availability on Food Transportation and Distribution”, Transportation Research Forum, Arlington, VA, Apr. 4-5, 2024.
- [8]. “Impact of Rising Diesel Prices and Truck Driver Availability on Food Transportation and Distribution”, NEDSI 53rd Annual Conference, Cambridge, MA, Apr. 4-5, 2024.
- [9]. “Investigating Issues in the Existing Food Supply Chain, Overcoming Transportation Hurdles, and Cultivating a Unified Network for Sustainable Solutions”, NJIT Nourish and Knowledge Seminar Series, Newark, NJ, Jan. 19, 2024.
- [10]. “From Waste to Wealth: A Future Paradigm for Plastic Management Using Blockchain Technology”, 2023 DSI Annual Conference, Atlanta, GA, Nov. 18-23, 2023.

- [11]. “Blockchain Design for Supply Chain Management”, International Production and Operations Management Society (Intl’ POMS) 2023 Annual Conference, Paris, France, Jul. 18-20, 2023.
- [12]. “Crisis of Plastic: Business Implications from Data Analytics” Production and Operations Management Society (POMS) 2023 Annual Conference, Orlando, FL, May 21-25, 2023.
- [13]. “From Waste to Wealth: A Future Paradigm for Plastic Management Using Blockchain Technology (BCT)” INFORM 2023 Annual Conference, Aurora, CO, April 16-18, 2023.
- [14]. “Impact of Rising Diesel Prices and Truck Driver Availability on Food Transportation and Distribution” Northeast Decision Science Institute (NEDSI) 2023 Annual Meeting, Washington, DC, Mar. 30-Apr. 1, 2023.
- [15]. “Blockchain Technology for the Plastic Crisis: A Mathematical Model for Sustainable Plastic Management” Northeast Decision Science Institute (NEDSI) 2023 Annual Meeting, Washington, DC, Mar. 30-Apr. 1, 2023.
- [16]. “Blockchain Technology for Agricultural Supply Chain” Production and Operations Management Society (POMS) 2022 Online Annual Conference, Apr. 21-25, 2022.
- [17]. “Competition and Coordination between Traditional Hospital and Internet Hospital” Northeast Decision Science Institute (NEDSI) 2022 Annual Meeting, Newark, NJ, Apr. 7-9, 2022.
- [18]. “Lessons Learned from Active Learning Pedagogy”, NJIT 2021-2022 Lunch at Institute of Teaching Excellence (ITE), March 3rd, 2022.
- [19]. “Blockchain Design for Supply Chain Management”, POMS 30th Annual Conference, Washington DC, May 2-6, 2019.
- [20]. “Blockchain Design for Supply Chain Management”, INFORMS International Conference, Taipei, Taiwan, June 17-21, 2018.
- [21]. 2008 APICS International Conference, Kansas City, MO, Honored scholar, sponsored by APICS.

Teaching Interest

Business Analytics and Data Analytics
 Financial Modeling and FinTech Courses
 Supply Chain Analytics (Data-Driven Analytics)

Course Taught

Instructed at NJIT

MGMT116: Quantitative Analysis with Applications for Business
 MGMT216: Business Data Analytics
 FIN310: Data-Driven Financial Modeling
 FIN600: Corporate Finance I

Instructed at Rutgers, Rutgers Business School

33:799:310: Demand Planning

Student Advising

Doctoral Students

Nesreen El-Rayes (2024): “Plastic Crisis and Sustainability: Management from the Perspective of Business Data Science and Technology”.
 Job Placement: Georgia State University, Robinson College of Business,

Fuqin Zhou (in progress), expected to graduate in 2026.

Undergraduate Student

Joseph Schaedler (2021): “Blockchain-enabled System Design for Standardized Testing Process”, won *NJIT URI 2021 Provost Summer Research Fellowship Award & Dr. James F. Stevenson Innovation Award: Third Prize*.

Selected Honor

- 2024 *Outstanding Associate Editor Award, Data Science and Management (DSM) Journal*
2024 Nominee for 2024 DSI Early Career Research Award
2024 Nominee for 2024 INFORMS Teaching Excellence Award
2023 *Women in Supply Chain Award*
2023 DSI Best Conceptual Research Paper Award for “From Waste to Wealth: A Future Paradigm for Plastic Management Using Blockchain Technology”
2023 *Omega Best Reviewer Award*
2023 NJIT Excellence in Teaching Award in Lower Division Undergraduate Instruction
2023 NJIT MTSM Excellence in Teaching Award in Lower Division Undergraduate Instruction
2022 NJIT MTSM Junior Faculty Research Excellence Award
2021 *Poets & Quants' list of the 50 Best Undergrad Professors*
2021 *Omega Best Reviewer Award*
2021 NJIT Virtual Immersive Technology Active Learning (VITAL) Initiative Award
2021 NJIT MTSM Teaching with Technology Enhancement Initiative Award
2020 NJIT Open and Affordable Textbook (OAT) Teaching Project Award
2018 ISAP Excellent Paper Award for “Chinese Address Standardization via Hybrid Approach Combining Statistical and Rule-Based Methods”
2018 Rutgers Business School Dean’s Fund for Summer Ph.D. Research
2018 Rutgers TA/GA Professional Development Fund Award
2017 Rutgers Business School Summer Scholarship
2016 Ph.D. Teaching Assistant Scholarship for 4 years, Rutgers Business School
2009 *Beta Gamma Sigma* Honored Lifetime membership
2009 Scholarship Award, the *Council of Supply Chain Management Professionals (CSCMP)* NJ
2008 Scholarship Award, the *Council of Supply Chain Management Professionals (CSCMP)* NJ
2008 *Alfred J. Battaglia Memorial Fellowship Award* for Supply Chain Management
2002 Presidential Award, National Chengchi University

Academic Service

Conference Session Organizer: 35th Annual POMS Conference, Atlanta, GA, May 8-12, 2025.
Doctoral Research Competition Judge: 2024 DSI Annual Conference, Phoenix, AZ, Nov. 2024.
NSCS Advisor: NJIT Chapter, 2023-2024
Guest Editor: Mathematics, 2022; FinTech, 2022
Associate Editor: Data Science and Management (DSM), 2020-2026
Journal Referee: Omega, IJPE, Transportation Science Part E, EJOR, CAIE, IJPR, DSI, etc.
Conference Session Chair: 2018 INFORMS International, Taipei, Taiwan, June 17-21, 2018.
Scholar membership: APICS, CSCMP, ISM, INFORMS, DSI, POMS, *Beta Gamma Sigma*

Industry Working Experience

DP&C Enterprises, LLC (East Brunswick, NJ)

Project Manager	6/2009-8/2010
Supply Chain and Marketing Analyst	2/2009-6/2009

BASF Fuel Cell Inc. (Somerset, NJ)

Supply Chain Analyst	5/2008-8/2008
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BioProMed Co. (Taipei, Taiwan)

China Region Representative	10/2003-1/2005
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