Approved by the Regents
May 20, 2021

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering
Department of Industrial and Operations Engineering

Ruiwei Jiang, assistant professor of industrial and operations engineering, Department of Industrial and Operations Engineering, College of Engineering, is recommended for promotion to associate professor of industrial and operations engineering, with tenure, Department of Industrial and Operations Engineering, College of Engineering.

Academic Degrees:

Ph.D.	2013	University of Florida, Industrial and Systems Engineering, Gainesville, FL
B.S.	2009	Tsinghua University, Industrial Engineering, Beijing, China

Professional Record:

2015 – present	Assistant Professor, Industrial and Operations Engineering, University of Michigan
2013 – 2015	Assistant Professor, Systems and Industrial Engineering, University of Arizona, Tucson, AZ

Summary of Evaluation:

Teaching: Professor Jiang is one of the Department of Industrial and Operations' (IOE) best instructors and he is active in their undergraduate and graduate programs. He has taught IOE 202, a large required gateway course six times, and he has taught IOE 310: Introduction to Optimization three times. It is notable that he led a major change to the delivery of IOE 310 starting in Winter 2020 to introduce new computational tools. He has also taught IOE 510, one of the department's most popular introductory graduate courses, and IOE 691, a new course he created on Stochastic and Robust Optimization. Professor Jiang's teaching evaluations are strong. His Q1 and Q2 scores are above 4.0, with most above 4.5. This is particularly impressive because the courses he teaches are among those many students find the most challenging. He has graduated two Ph.D. students as chair, with another two in progress. He has also graduated three Ph.D. students as a co-chair.

Research: Professor Jiang works in stochastic and robust program, focusing on two subfields: distributionally-robust optimization (DRO), where decisions have to be made without (full) knowledge of probability distributions for key parameters/unrealized-data, and stochastic integer programming (SIP) where distributions are known (in practice, from large data sets). Professor Jiang has applied these paradigms numerous times to applications in energy, and more recently, healthcare. Professor Jiang has 25 refereed publications, 23 of which are full length articles in archival journals, and the majority of which are published in the very top journals in his field. He has 1,929 citations according to google scholar. He has demonstrated the ability to attract funding to support his research group's endeavors, including five NSF grants, including the prestigious NSF Career award.

Recent and Significant Publications:

Jiang, R., Guan, Y., and Watson, J., "Cutting Planes for The Multistage Stochastic Unit Commitment Problem," *Mathematical Programming*, 157(1): 121-151, 2016.

Jiang, R., Shen, S., and Zhang, Y., "Integer Programming Approaches for Appointment Scheduling with Random No-Shows and Service Durations," *Operations Research*, 65(6): 1638–1656, 2017.

Zhang, Y., Jiang, R., and Shen, S., "Ambiguous chance-constrained binary programs under mean-covariance information," *SIAM Journal on Optimization*, 28 (4), 2922-2944, 2018.

Weijun Xie, Shabbir Ahmed, and Ruiwei Jiang, "Optimized Bonferroni Approximations of Distributionally Robust Joint Chance Constraints," *Mathematical Programming*, accepted, in press, 2019.

Babaei, S., Jiang, R., and Zhao, C., "Distributionally Robust Distribution Network Configuration Under Random Contingency," *IEEE Transactions on Power Systems*, accepted, in press, 2020.

Service: Professor Jiang has been a regular member of IOE's Graduate Admissions and Financial Aid Committees since joining the department. In addition, he has organized their department seminars multiple times, and he played a pivotal role on a departmental task force on Undergraduate Computing and Data Science, by leading major changes to IOE 310 and providing support to other faculty in need of help modifying other related classes. Professor Jiang also volunteered as a member of a new departmental task force charged with recommending new DEI activities related to systemic racism. Externally, he was elected as the vice chair for the Optimization Subdivision of INFORMS which has more than 500 members and he served as a judge for several competitions, including the INFORMS Nicholson Prize, which is widely viewed as the top graduate student prize in the field. He is a regular participant on grant panels, including those from NSF.

External Reviewers:

Reviewer A: "In conclusion, I feel that the creative accomplishments of Prof. Jiang are remarkable in every respect. His research contributions are outstanding in terms of relevance as well as rigor. In view of his achievements I feel confident in recommending that Prof. Jiang should be awarded a tenured faculty position. If he was considered for tenure at [my institution], I would support his promotion."

Reviewer B: "His research record is stellar, he has more than an adequate level of external funding, he has successfully supervised a PhD graduate, and he is making strong service contributions to the discipline."

Reviewer C: "I strongly support Dr. Jiang's promotion to associate professor with tenure. In my view his case should be straightforward, and I am confident that such a promotion would occur were he in my department at [my institution]."

Reviewer D: "I would say that Ruiwei Jiang is among the top 3 in his peer group working in Distributionally Robust Discrete Optimization."

Reviewer E: "He is also a prolific author publishing in top journals. Overall, Ruiwei has made significant contribution [sic] to his field and has demonstrated his innovative research ability. He is regarded highly by his peers and I believe he would be very positively considered for promotion if he were at [my institution]. I enthusiastically support his promotion."

Summary of Recommendation: Professor Jiang is a well-rounded researcher, an outstanding teacher and advisor, and a good citizen to his department and research community. It is with the support of the College of Engineering Executive Committee that I recommend Ruiwei Jiang for promotion to associate professor of industrial and operations engineering, with tenure, Department of Industrial and Operations Engineering, College of Engineering.

Alec D. Gallimore, Ph.D.
Robert J. Vlasic Dean of Engineering
College of Engineering

May 2021