

PROMOTION RECOMMENDATION
The University of Michigan-Dearborn
College of Engineering and Computer Science

Armagan Bayram, assistant professor of industrial and manufacturing systems engineering, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science, is recommended for promotion to associate professor of industrial and manufacturing systems engineering, with tenure, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science.

Academic Degrees:

Ph.D.	2014	Management Science, University of Massachusetts, Amherst, MA
M.S.	2009	Industrial Engineering, Istanbul Technical University, Istanbul, Turkey
B.S.	2007	Industrial Engineering, Istanbul Technical University, Istanbul, Turkey

Professional Record:

2015-present	Assistant Professor, Industrial and Manufacturing Systems Engineering, University of Michigan-Dearborn
2014-2015	Post-Doctoral Researcher, Northwestern University, Evanston, IL
2014-2015	Instructor, Northwestern University, Evanston, IL
2013-2014	Associate in Research, Baystate Medical Center, Springfield, MA

Summary of Evaluation:

Teaching: Professor Bayram is an excellent educator who established an outstanding record in several aspects of teaching including classroom instruction at sophomore, junior and senior levels and student mentorship. Professor Bayram has taught three undergraduate courses (Engineering Probability and Statistics, Simulation in Systems Design, and Facilities Design) in the Bachelor of Science in engineering (BSE) industrial and systems engineering (IS&E) program. Her overall instructor evaluations have been excellent, averaging 4.45/5.0.

Professor Bayram is the recipient of the 2020 UM-Dearborn Distinguished Teaching Award for the “Non-Tenured, Tenure Track” category and the 2019 College of Engineering and Computer Science (CECS) Faculty Excellence Award in Teaching. Professor Bayram is advising one student in their Ph.D. research, has advised two students in their master of science thesis research, four master’s students in research projects, and sixteen undergraduate students in nine guided-study projects.

Research: Professor Bayram is a solid researcher and scholar. Her research primarily focuses on the development of capacity allocation and scheduling models in the context of healthcare system design and mobility, transportation, and supply chain management. Since joining the Industrial and Manufacturing Systems Engineering (IMSE) department in 2015, Professor Bayram published 12 peer-reviewed papers, several of them in highly reputed scholarly journals. She received a two-year National Science Foundation (NSF) Engineering Research Initiation award in the amount of \$199,775.

Recent and Significant Publications:

- Armagan Bayram, Senay Solak, Oz Harmanli, Bahriye Cesaret. "Selecting a Winning Team: Dynamic Portfolio Management for Surgical Team Allocation in Robotic Surgery," *Computers and Industrial Engineering*, 2022.
- Xiao Yu, Armagan Bayram. "Managing Capacity Allocation Decisions for Virtual and Office Appointments in Chronic Care," *Health Care Management Science*, 2021, 24 (4) pp.742-767.
- Armagan Bayram, Sarang Deo, Seyed Iravani, Karen Smilowitz. "Managing virtual appointments in chronic care," *IISE Transactions on Healthcare Systems Engineering*, 2020, 10 (1) pp.1-17
- Armagan Bayram, Bahriye Cesaret. "Order fulfillment policies for ship-from-store implementation in omni-channel retailing," *European Journal of Operational Research*, 2021, 294 (3), pp.987-1002.

Service: Overall, Professor Bayram's performance was rated as excellent in this category. At the department level, Professor Bayram served as the bachelor of science in engineering in industrial and systems engineering program assessment coordinator, contributed to the development of the 2022 ABET self-study report for the program, and to the ABET accreditation visit in October 2022. She was the IMSE department faculty secretary from 2015-2016, served on the Master of Science (MS) Information Systems and Technology (I&ST) program review committee, and on the lecturer major review committee. At the college level, since September 2022, she has been serving as CECS faculty secretary.

Professor Bayram is also active in professional organizations. She serves on the Editorial Board of the *International Journal of Industrial and Operations Research* and the *Journal of Analytics*. She organized and chaired sessions at several conferences in her discipline. She has also served as a reviewer for several journals in her field.

External Reviewers:

Reviewer A: "Especially noteworthy is Dr. Bayram's engagement with Blue Cross Blue Shield Michigan (BCBSM), the Henry Ford Health System and the City of Grand Rapids to initiate summer internship and senior design projects. I know from personal experience that working with healthcare organizations takes a lot of perseverance. Dr. Bayram envisions these collaborations as a way 'to continue to grow healthcare, mobility, and community-based research in ways that are relevant to society with a high promise of implementation'. It's clear that Dr. Bayram wants to translate her research into meaningful societal impact, while providing valuable opportunities for students."

Reviewer B: "Based on all the discussion above, I conclude that Dr. Bayram: a) has generated a significant body of research during her academic career; b) has focused on conducting high-quality research and on publishing her articles in relevant disciplinary journals; c) has made significant scholarly contributions and impacts to her chosen areas of research by way of her publications; d) has demonstrated intellectual leadership and the ability for independent scholarship in her research work; e) has already made impacts on the OR and supply chain disciplines by way of her important professional service; and f) is likely to continue making significant contributions in the future."

Reviewer C: “Summarizing the discussion of Dr. Bayram’s publication record, I can confidently say that it clearly meets or exceeds the expectations for researchers in this field who are considered for promotion to the rank of Associate Professor at peer institutions.”

Reviewer D: “Dr. Bayram has recently been awarded a highly competitive NSF grant for her work in managing curb spaces in urban mobility. This problem and other research areas are high-impact research areas that I believe hold a high funding potential and will continue to do so into the next decade. This should bode well for her ability to attract more funding and sustain a productive externally funded research program.”

Reviewer E: “...I wanted to highlight a paper that appeared in *IISE Transactions on Healthcare Systems Engineering*...what sets this paper apart is the application itself, the insights to uncover near-optimal policies, and the recommendation of a policy that a decision-maker can practically use. That last point is vital: even the most sophisticated solutions are not useful in practice if they will not be adopted. Given that practical policies have to be relatively simple, knowing their propensity to be optimal – and their limitations – is of utmost importance.”

Summary of Recommendation: Professor Bayram is a productive faculty member with significant contributions to the field of systems engineering, specifically in capacity allocation and scheduling models. She is an excellent teacher and mentor; and is a leader who contributes both in external and internal service. It is with the support of the College of Engineering and Computer Science Executive Committee that I recommend Armagan Bayram for promotion to associate professor of industrial and manufacturing systems engineering, with tenure, Department of Industrial and Manufacturing Systems Engineering, College of Engineering and Computer Science.



Ghassan Kridli, Dean
College of Engineering and Computer Science



Domenico Grasso, Chancellor
University of Michigan-Dearborn

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