

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

DeLean Tolbert Smith, 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.	2017	Engineering Education, Purdue University, West Lafayette, IN
M.S.	2011	Industrial and Operations Engineering, University of Michigan, Ann Arbor, MI
B.S.	2010	Electrical Engineering, University of Michigan-Dearborn, Dearborn, MI

Professional Record:

2017-present	Assistant Professor, Industrial and Manufacturing Systems Engineering, University of Michigan-Dearborn
2017	Research Fellow, Industrial and Manufacturing Systems Engineering, University of Michigan-Dearborn

Summary of Evaluation:

Teaching: Professor Smith is a dedicated and inspiring teacher, taking on mostly first-year introductory courses. In a complete overhaul of ENGR 100, she introduced new teaching practices and innovative curricular changes to the course, significantly improving its offerings. Professor Smith is advising one student in their doctoral research, has advised and/or is advising three students in their master's thesis research, and five students in their undergraduate research projects. She is a champion of her students in and out of the classroom.

Research: Professor Smith is an innovative and versatile community-engaged scholar whose research primarily focuses on engineering education and engineering design. Since joining the Industrial and Manufacturing Systems Engineering department in 2017, Professor Smith published three peer-reviewed journal papers, nine refereed conference papers (six with students, including two with undergraduate students), and edited one book. She also generated three products from community-engaged research for community partners and families. Furthermore, she has been very successful in attracting external support for her research. She is a recipient of a highly competitive National Science Foundation (NSF) Faculty Early Career Development (CAREER) Award.

Recent and Significant Publications:

Tolbert Smith, D., (Ed). *The Handy Engineering Answer Book*. Visible Ink Press; Canton, MI, 2022.

Tolbert Smith, D., Jones, T., & Cardella, M. A. "Narrative Investigation of Black Familial Capital that Supports Engineering Engagement of Middle-School-Aged Youth," *Journal of Precollege Engineering Education Research*, 2022.

Tolbert Smith, D. "They are here to support me": Community Cultural Wealth Assets and PreCollege Experiences of Undergraduate Black Men in Engineering," *Journal of Engineering Education*, 2022.

Tolbert, D. "Girls can do STEAM too-investigating the influence of a STEAM career awareness workshop on Tanzanian and Zimbabwean secondary school girls' perception of careers in STEAM," *Global Journal of Engineering Education*, 22(2), 2020.

Service: Professor Smith contributes to the university and broader community through service. Previously, she was a member of the undergraduate Human-Centered Engineering Design (HCED) Program Committee, currently serves on the Bachelor of Science in engineering in HCED Program Committee, and chairs the departmental outreach committee. As a member of the HCED Committee, she helped to design the curriculum during the development phase of the program. At the college level, she serves on the Experiential Honors Committee, the Academic Integrity Board, and the Grand Challenges Scholars' Program Committee. At UM-Dearborn, she served on the Innovation, Design, Entrepreneurship, and Artistry (IDEA) Lab Committee, and she was a member of the Search Advisory Committee for the vice provost of enrollment management. She represented UM-Dearborn on the University of Michigan Presidential Search Committee and she was the UM-Dearborn faculty representative at the UM Board of Regents May 2022 meeting. Professor Smith is also active in professional societies. She served on NSF review panels, and she was a member of the American Society for Engineering Education Educational Research Methods Division's best paper selection committee. She also regularly reviews papers for top-tier journals in her field.

External Reviewers:

Reviewer A: "It is my belief that she will continue to make a significant contribution to the engineering education research body of knowledge through her work to examine how students decide to pursue engineering, the knowledge required for success in engineering, to leverage prerequisite knowledge in engineering setting, and institutions can impact students' success in engineering."

Reviewer B: "I see great evidence of continued productivity and contributions in the casebook, such as grants in preparation; a high success rate for proposals submitted; and a diversity of collaborators, funding sources, journals, and dissemination modes. Honestly, I am very excited to see where Dr. Smith takes her work after building up some new directions and mechanisms for community-engaged research."

Reviewer C: "I'll start by reflecting on her research work. She is a CAREER awardee, which is one of, if not the most prestigious awards an early career scholar can receive. This puts her in the upper echelon of engineering education researchers in her peer group. She has been active in seeking funding to support her research interests. I think her new research directions will facilitate greater opportunities to obtain funding and recognize she is already engaged in planned future proposals."

Reviewer D: “Dr. Smith is a driven scholar, an intentional educator, and active member of the communities with which she affiliates. Given her past trajectory and current interests, advancing in her academic career would give her the platform for greater impact. Moreover, Dr. Smith’s dedication to being a community-engaged researcher will not only transform the community she cherishes, but also bring visibility and notoriety to UM-D. It is with these thoughts in mind that I can—without reservation—offer my full support of Dr. Smith’s case for promotion with tenure.”

Reviewer E: “Dr. Smith’s community engaged outreach bridges her research and teaching in exceptional ways. Genuine and deep community engagement is extraordinarily time consuming. Anyone can ‘parachute’ into a community, freeze a banana in liquid nitrogen in a vain attempt to get kids interested in STEM, and then abandon the community, leaving no lasting impact. The ways in which Dr. Smith is studying and ‘doing’ community engagement serve as a model for others in the field. She is deeply engaging with communities that are particularly important to UM-Dearborn and the nation to address educational inequities, and aligning her research and teaching activities with UM-Dearborn’s values.”

Reviewer F: “Reflecting on Dr. Tolbert-Smith’s CV, personal statement, and publications, I am happy to support her tenure and promotion to Associate Professor. Her quantity of publications and presentations, continuing research, and quality of her work, content focus and methodological breadth point to a strong trajectory and continued contributions to the field of engineering education and related disciplines.”

Summary of Recommendation: Professor Smith is a productive scholar who has made significant and impactful contributions to the field of engineering education. She is an excellent teacher and mentor; and she is a community 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 DeLean Tolbert Smith 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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