Approved by the Regents
May 19, 2022

PROMOTION RECOMMENDATION
The University of Michigan
College of Engineering
Department of Civil and Environmental Engineering

Carol C. Menassa, associate professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering, is recommended for promotion to professor of Civil and Environmental Engineering, with tenure, Department of Civil and Environmental Engineering, College of Engineering.

Academic Degrees:

Ph.D.	2009	University of Illinois at Urbana-Champaign, Civil and Environmental Engineering, Urbana, IL
M.S.	2009	University of Illinois at Urbana-Champaign, Finance, Urbana, IL
M.E.	2002	American University of Beirut, Civil and Environmental Engineering, Beirut, Lebanon
B.E.	1995	American University of Beirut, Civil and Environmental Engineering, Beirut, Lebanon

Professional Record:

2016 – Present	Associate Professor (with tenure), Department of Civil and Environmental Engineering, University of Michigan
2013 – 2016	Assistant Professor, Department of Civil and Environmental Engineering, University of Michigan
2009 – 2013	Assistant Professor, Department of Civil and Environmental Engineering, University of Wisconsin-Madison

Summary of Evaluation:

Teaching: Professor Menassa has excelled in all facets of education, including developing and teaching graduate and undergraduate classes, designing new and globally accessible online curriculum, as well as advising and mentoring students. She has amassed a strong teaching record having taught a range of graduate and undergraduate classes. Her teaching evaluations reflect her effectiveness as an educator, wherein her average Q1 and Q2 teaching scores have been in the high-4's. Professor Menassa is also a caring mentor of students under her research supervision. She has advised ten Ph.D. students in her academic career, seven of whom have graduated. Professor Menassa has also passionately mentored undergraduate students to support their professional development. Professor Menassa has proven herself to be a significant contributor to the educational mission of the University. Letters received from her students praise her dedication to teaching. Several students commented on how Professor Menassa effectively helped them thrive despite the challenging circumstances arising due to the Covid-19 pandemic.

Research: Professor Menassa is an internationally recognized leader in research related to construction engineering and management, with particular emphasis on human-infrastructure interaction. Professor Menassa's success as a multi-disciplinary authority on the topic is due to

her versatility to conduct both rigorous theoretical work and perform experimental validation in the field with human subjects. Evidence of the prominence Professor Menassa has attained is her selection to receive the 2017 ASCE Daniel W. Halpin Award for Scholarship in Construction, the 2017 ASCE Alfred Noble Prize, the 2017 FIATECH Outstanding Early Career Researcher Award, the 2021 ASCE Arthur M. Wellington Prize, and the 2021 ASCE Collingwood Prize, in addition to numerous other Best Paper Awards. Professor Menassa is a highly productive scholar. She has published (or accepted) over 60 refereed journal papers in an impressive array of venues, of which over 35 have been completed since her promotion to associate professor in 2016. In addition, she has amassed a robust level of funding with $3.7 million dedicated exclusively to her research program, $2.8 million of which has been at the University of Michigan. In addition to being an exemplary researcher, Professor Menassa is actively engaged in activities to enable research outcomes to transition out of the laboratory and into practice for the benefit of diverse groups of individuals.

Recent and Significant Publications:

Azar, E., Menassa, C., "A Framework to Evaluate Energy Saving Potential from Occupancy Interventions in Typical US Commercial Buildings," *Journal of Computing in Civil Engineering*, ASCE, 2014; 28(1): 63-78.

Li, D., Xu, X., Chen, C.F., Menassa, C., "Understanding energy-saving behaviors in the American workplace: A unified theory of Motivation, Opportunity and Ability," *Energy Research and Social Science*, Elsevier, 05/2019; 51: 198-209.

Li, D., Menassa, C., Kamat, V., "Robust non-intrusive interpretation of occupant thermal comfort in built environments with low-cost networked thermal cameras," *Applied Energy*, Elsevier, 10/2019; 251: 113336: 1-16.

Mantha, B., Menassa, C., Kamat, V., D'Souza, C., "Evaluation of Preference and Constraint-Sensitive Path-Planning for Assisted Navigation in Indoor Building Environments," *Journal of Computing in Civil Engineering*, ASCE . 2020; 34(1): 04019050: 1-18.

Li, D., Menassa, C., Kamat, V., Byon, E., "HEAT: Human Embodied Autonomous Thermostat," *Building and Environment*, Elsevier . 07/2020; 178:106879: 1-14.

Service: Professor Menassa has demonstrated her leadership through an extensive record of service to the university and professional communities. She has made a significant impact on the international construction engineering community by serving on the board of governors of the American Society of Civil Engineers (ASCE) Construction Institute and as chair of the executive committee of the Construction Research Council. She has served on the editorial boards of prominent journals in her area of research. Within the university, Professor Menassa has been an enthusiastic leader and a member of many departmental and college committees. In addition, her leadership in advising the ASCE Student Chapter at Michigan has enriched the interaction between the department and the civil and environmental engineering industry, which is vital to the students' professional development and long-term success.

External Reviewers:

Reviewer A: "…Dr. Menassa has established herself as one of the lead researchers working at the intersection of human experience and built environment. She is a highly productive researcher and has made significant contributions in this area. I am a big fan of her work and strongly support her promotion to the rank of Professor."

Reviewer B: "[Professor Menassa's] scholarly accomplishments indicate an upward and stable trajectory that represents recognition to her and to the university ... Her contributions to diversity, equity and inclusion are remarkable …"

Reviewer C: "Dr. Menassa's dossier is *outstanding* in all respects and compares *extraordinary well* with those of colleagues who are at the same stage of development and who have been promoted to the Professor rank."

Reviewer D: "… Dr. Menassa has proven that she is an enthusiastic and successful educator … Dr. Menassa has been dedicated to and successful in supervising students at different levels with diverse cultural backgrounds … These accomplishments speak for the quality of Dr. Menassa's teaching and supervision, as well as the value that she provides to her students."

Reviewer E: "She has clearly demonstrated her potential to become one of the leaders in the field of information science and technology in building and construction engineering. I would consider the research accomplishments by Dr. Menassa comparable to those who would be promoted to Professor with Tenure at any top universities in this country."

Reviewer F: "Dr. Menassa stands among the top of her peer group in terms of contributions to the discipline and overall productivity measured in number of publications, graduate students supervised, funding secured, and service contributions."

Summary of Recommendation: Professor Menassa is a prominent international leader of the civil and environmental engineering field who has made significant intellectual contributions to the study of human-infrastructure interaction. She is a charismatic educator with a distinguished record of motivating and promoting the aspirations of her students. She has played key leadership roles in the international construction engineering research community. It is with the support of the College of Engineering Executive Committee that I recommend Carol C. Menassa for promotion to professor of civil and environmental engineering, with tenure, Department of Civil and Environmental Engineering.

Alec Gallimore

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

May 2022