

Dr. Nima Rahbar

Vision

It has been a privilege to call EMI my professional home for many years, and I am honored to be considered for the Board. My ties to this ASCE community run deep through long-standing membership in EMI and through service on ASCE's Department Heads Advisory and Coordinating Council (DHACC). Alongside my academic work, I have also co-founded a venture-backed startup translating mechanics-based research into commercial products, with issued patents and innovation awards. That experience has given me a complementary perspective on how mechanics research can move from fundamental discovery to societal impact, and I would be glad to bring that perspective to the Board. If elected, I would focus my service on three areas:

Stronger ties across ASCE. EMI's mechanics community produces foundational science that strengthens structural, geotechnical, transportation, environmental, architectural, and materials engineering. I would work to foster joint sessions, co-sponsored conferences, and cross-institute task forces with SEI, GI, T&DI, EWRI, AEI, and other ASCE communities, so that EMI's work reaches even further into engineering practice.

Entrepreneurship and translation. EMI is a deeply scholarly community, and that is one of its great strengths. At the same time, our science has enormous translational potential. I would support pathways for interested members to engage with industry mentorship, I-Corps-style training, national laboratories, venture programs, and recognition of translational impact alongside scholarly excellence.

Workforce development. Building on my recent experience in workforce development, I would help EMI expand mentorship, postdoc-to-faculty pathways, and bridges into industry, national laboratories, and entrepreneurship, with special attention to colleagues at minority-serving institutions, primarily undergraduate institutions, and other settings where access to professional networks can be limited.

Thank you for considering me. I would be truly honored to serve this community that has given me so much.

Bio

Dr. Rahbar received his Ph.D. in Mechanics, Materials, and Structures in the Department of Civil Engineering at Princeton University. He joined the WPI in August 2012 as an Assistant Professor after starting his career at UMass Dartmouth. His research interests mainly focus on the bioinspired design of materials and emphasize their mechanical and thermal properties. Dr. Rahbar has won several awards, including the NSF CAREER award in 2012, the TMS Young Leader's Award in 2013, the Air Force Summer Faculty Fellowship Award in 2013, the Consecutive ASCE 2015 and 2016 Outstanding Reviewer, 2018 Sigma Xi

Outstanding Junior Faculty Research Award, 2020, and 2022 ONR Summer Senior Faculty Fellowship. He was a visiting associate professor at the MIT CEE Department in 2019, and Cornell CEE in 2020. His latest work has focused on enzymatic self-healing concrete, carbon-negative structural materials, and zero-friction metallic surfaces. Details can be found on the website of his group at nrahbar.org. He has served on many leadership committees in WPI and the scientific community, such as the faculty representative on the board of trustees, member of the WPI Committee on Tenure and Academic Freedom, member of the WPI research council, and multiple leadership search committees, such as the Dean of Engineering. Since July 2024, he has served as the Head of the Civil, Environmental, and Architectural Engineering Department at WPI, leading three programs.