

Nominee: Dr. Christine Ortiz

Morris Cohen Professor of Materials Science and Engineering
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Scientific/engineering accomplishments in an area relevant to the AVS:

Christine Ortiz is the Dean for Graduate Education and the Morris Cohen Professor of Materials Science and Engineering at the Massachusetts Institute of Technology. Dr. Ortiz has over 160 scientific publications in more than 20 academic journals, including Nature Materials, Science, Nano Letters, Physical Review Letters, Proceedings of the National Academy of Sciences USA, Biophysical Journal, Tissue Engineering, and the Journal of Biomechanics. She has given more than 130 invited lectures on her research, over 35 of which were international, and at nine topically different Gordon Research Conferences. She has received over 30 national and international honors, including the Sigma Xi Distinguished Lecturer Award; National Security Science and Engineering Faculty Fellowship; a Lady Davis Fellowship, visiting professorship, and Hadassah Appreciation Medal at the Hebrew University of Jerusalem; the MIT Martin Luther King Jr. Leadership Award; and the National Science Foundation Presidential Early Career Award for Scientists and Engineers, which was presented to her by President George W. Bush at the White House. She is also a fellow of the Defense Science Study Group.



Outstanding mentoring:

Dr. Ortiz has done so much in terms of diversity that this website <http://web.mit.edu/cortiz/www/Diversity/Ortizdiversity.html> only has selected diversity activities listed. What impresses me is that she speaks to this topic regularly at prominent meetings, is engaged in MIT activities that address this issue, is involved with many professional societies, and she has carried this dedication through to her mentoring of students in her group.

A short biography:

Professor Ortiz obtained her BS from Rensselaer Polytechnic Institute and MS and PhD from Cornell University, all in the field of materials science and engineering, with a minor in theoretical and applied mechanics. Dr. Ortiz's doctoral research focused on the synthesis, characterization, physics, and mechanics of a new class of novel liquid crystalline thermosets and elastomers based on diglycidyl ether of 4,4'-dihydroxy-alpha-methylstilbene. During graduate school, Dr. Ortiz carried out collaborative research each summer at the University of Cambridge, Cavendish (physics) Laboratory in the UK. After graduation, she was granted an NSF-NATO postdoctoral fellowship which she used to carry out research in the Department of Polymer Chemistry, University of Groningen, in the Netherlands, where she worked in the area of single-molecule mechanics. Dr. Ortiz then joined the MIT Department of Materials Science and Engineering as a tenure-track faculty member and developed a research program that focuses on the multiscale mechanics of musculoskeletal and exoskeletal structural biological materials, with the primary goal being to quantify and understand new mechanisms, phenomena, and design principles and how they determine function, quality, and pathology. Dr. Ortiz has supervised more than 80 students from 10 different academic disciplines. Dr. Ortiz has served on the editorial boards of Science, Advanced Biomaterials, Transactions of the American Society of Mechanical Engineers, and Applied Mechanics Reviews. She has served as a reviewer for the National Science Foundation, the National Institutes of Health, the National Aeronautics and Space Administration, and the Department of Defense. Dr. Ortiz is the founding and current faculty director of the MIT International Science and Technology Initiatives (MISTI)-Israel program. She has served on over 25 Institute and departmental committees and in her current role as Dean for Graduate Education leads areas which include fellowships, personal support, professional development, policies and procedures, educational innovation, academic performance, graduate admissions administration, diversity initiatives, immigration, community-building, and Institute-wide data analysis.

