

EPSTEIN INSTITUTE SEMINAR ▪ ISE 651

Additive Manufacturing and Design Innovation: Challenges and Opportunities

ABSTRACT - Additive manufacturing (AM) is making a profound impact on the way engineers realize customized parts, and it is democratizing product design and manufacturing in unprecedented ways. In this talk, we will explore the research frontiers at the intersection of AM and design innovation and some of the new AM processes under development to expand those frontiers. Examples include volumetric sintering and reactive extrusion AM for high speed production of lightweight, high-strength polymers for construction, aerospace, and other demanding applications. We will also explore some of the process-aware design exploration frameworks that are needed to fully leverage these AM capabilities.



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SPEAKER BIO – Carolyn Conner Seepersad is the J. Mike Walker Professor of Mechanical Engineering at The University of Texas at Austin. She is the director of the Center for Additive Manufacturing and Design Innovation and a member of the U.T. System Academy of Distinguished Teachers. Her research interests include design for additive manufacturing simulation-based design of materials and structures, and process innovation in additive manufacturing. She is a co-organizer of the annual Solid Freeform Fabrication Symposium and a member of the ASME Design Engineering Division Executive Committee. She is the author of more than 125 peer-reviewed conference and journal publications, including best paper awards from ASME and ASEE. She teaches courses on engineering design and additive manufacturing.