

MANUFACTURING LEADERSHIP SEMINARS

Manufacturing – An Integration Platform

February 26, 2021 | 3pm EST
Hosted online via [Zoom](#)



Lightning Talk

Prof. **Cheng Sun**, Northwestern
Conformal Geometry and
Multimaterial Additive
Manufacturing through Freeform
Transformation of Building
Layers



Jian Cao

Cardiss Collins Professor of Mechanical Engineering
Director of the Northwestern Initiative for Manufacturing
Science and Innovation
Associate Vice President for Research
Northwestern University

Dr. Cao served at the National Science Foundation as a program director for two years. She is an elected Fellow of AAAS, ASME, SME, and CIRP. Her major awards include the ASME Milton C. Shaw Manufacturing Research Medal, SME Gold Medal, and the Vannevar Bush Faculty Fellowship from the DoD. Prof. Cao is the Editor-in-Chief of the Journal of Materials Processing Technology.

Her talk will provide an overview of research philosophy and manufacturing process research using mechanics-driven and data-driven approaches. She will demonstrate the approaches using selected manufacturing processes, i.e., rapid dieless sheet metal forming and metal-based powder-blown additive manufacturing. The goals are to advance the fundamental understanding of the interactions between machine, materials and performance, and to make technical expertise and skills accessible for all experience-levels, democratizing manufacturing access and application.

Sponsors



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