

# MANUFACTURING RESEARCH

## Smart Manufacturing Seminar Series

### Democratizing Advanced Manufacturing

#### Abstract

The technological foundations of advanced manufacturing continue to rapidly evolve as ubiquitous sensing, cloud computing and storage, and next generation controllers are introduced into the manufacturing ecosystem. This talk presents some of the technical concepts and business models that will enable new technologies and capabilities in the manufacturing sector to be rapidly deployed throughout the U.S. industrial base. Insight will be presented into next generation resilient production operations and business models that favor local and point of assembly manufacturing. The talk will conclude with a discussion of how rapidly advancing technical innovations will be propagated throughout the manufacturing enterprise, ensuring a state-of-the-art manufacturing economy. This will provide opportunities for businesses of all sizes and democratize advanced manufacturing technologies throughout the United States.

#### Speaker Bio

Thomas Kurfess is the Chief Manufacturing Officer for Oak Ridge National Laboratory (ORNL). In this position he is responsible for the strategic planning for advanced Manufacturing. His research focuses on the design and development of advanced systems by rapidly developing, scaling and integrating new technologies into production operations. Prior to joining ORNL, he was Professor of Mechanical Engineering and the HUSCO Ramirez Distinguished Chair in Fluid Power and Motion Control. Kurfess has also served as the Assistant Director for Advanced Manufacturing at

the Office of Science and Technology Policy in the Executive Office of the President of the United States of America. In this position, he had responsibility for engaging the federal sector and the greater scientific community to identify possible areas for policy actions related to manufacturing. He earned his PhD, SM and SB in mechanical engineering, and an SM in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology.

**Friday, February 28, 2020**  
**11:00am - 12:00pm**

Chrysler Center, Room 151  
2121 Bonisteel Blvd  
Ann Arbor  
*Metered parking is available.*



#### Tom Kurfess

Chief Manufacturing Officer  
for Oak Ridge National  
Laboratory

#### Co-organized by:

Judy Jin (Program Director, ISD Manufacturing;  
Professor IOE)  
Chinedum Okwudire (Associate Chair, ISD; Associate  
Professor, ME)

#### Questions?

Contact Kathy Bishar at [kbishar@umich.edu](mailto:kbishar@umich.edu)