

Workshop on the Broader Impacts of Smart Manufacturing



National Academies of Science Building, Lecture Room 2101 Constitution Ave. NW, Washington, DC 20418

Presented by the Committee on the Options for a National Plan for Smart Manufacturing

Study Chair - Thomas Kurfess, Georgia Institute of Technology Workshop Lead: Jian Cao, Northwestern University Workshop Planning Team Members: Lili Cheng, Microsoft, Jim Davis, CESMII/UCLA, Melissa Orme, Boeing

Under the auspices of the National Materials and Manufacturing Board (NMMB)

Workshop participants will explore a wide range of impacts, including optimization, efficiency, decarbonization, improved U.S. competitiveness and supply chain resilience, opportunities to integrate product and process lifecycle, resource (energy, material, and water) productivity, and quicker development, deployment, and adoption of smart manufacturing technologies and processes. The workshop will explore and prioritize the industry sectors that could be most impacted and under what conditions smart manufacturing could improve efficiency and scale of impact.

Attendees can register to attend at: <u>https://events.nationalacademies.org/03-07-2023_workshop-on-t</u> <u>he-broader-impacts-of-smart-manufacturing</u>

Workshop Agenda

March 7, 2023			
9:30 am ET/ 6:30 am PT	Working Breakfast	30 mins	
10:00 am ET/ 7:00 am PT	Welcome and Introduction Tom Kurfess, Study Chair Jian Cao, Workshop Chair Sudarsan Rachuri, DOE	30 mins	
Panel 1 Sustainability			
10:30 am ET/ 7:30 am PT	- Michael Rinker , Senior Technical Advisor, US Department of Energy, Energy Efficiency and Renewable Energy	15 mins	
	- Chenn Zhou, Director, Center for Innovation through Visualization and Simulation (CIVS), Purdue	15 mins	
	 Jennifer Dunn, Director, Center for Engineering Sustainability and Resilience, Northwestern University 	15 mins	
	Q+A and General Discussion - Moderated by Jim Davis & Melissa Orme	75 mins	
12:30 am ET/ 9:30 am PT	Lunch Break	60 mins	
Panel 2 Interconnected Data			
1:30 pm ET/ 10:30 am PT	- Alan Wittman, Senior Director, Enterprise Business & Digital Transformation, Manufacturing & Quality, Boeing	15 mins	
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	- Christoph Berlin, General Manager, Microsoft	15 mins	
	 Q+A and General Discussion Moderated by Melissa Orme & Lili Cheng 	75 mins	
3:30 pm ET/ 12:30 pm PT	Open Discussion Session and Closing Remarks for Day 1	30 mins	
4:00 pm ET/ 1:00 pm PT	Public Workshop Adjourns for the day (Committee moves to Closed Session)		

March 8, 2023			
9:30 am ET/ 6:30 am PT	Working Breakfast	30 mins	
10:00 am ET/ 7:00 am PT	Recap of Day 1 Jian Cao, Workshop Chair	30 mins	
Panel 3 Integrated Business and Technical Systems			
10:30 am ET/ 7:30 am PT	 Kevin Goering, Partner, McKinsey Karen Kerr, General Partner and Managing Director, Exposition Ventures Edward Mehr, co-founder and CEO, Machina Labs Q+A and General Discussion Moderated by Jian Cao & Jim Davis 	15 mins15 mins15 mins75 mins	
12:30 am ET/ 9:30 am PT	Lunch Break	60 mins	
Panel 4 Emerging Opportunities			
1:30 pm ET/ 10:30 am PT	 John A. Hart, Director, Lab for Manufacturing and Productivity, MIT Bruce Kramer, Senior Advisor, NSF John Dyck, CEO, CESMII Q+A and General Discussion Moderated by Lili Cheng & Jian Cao 	15 mins 15 mins 15 mins 75 mins	
3:30 pm ET/ 12:30 pm PT	Open Discussion Session and Closing Remarks	30 mins	
4:00 pm ET/ 1:00 pm PT	Public Workshop Adjourns for the day (Committee moves to Closed Session)		