

Winter 2021 Members Meeting

February 16 - 18 | VIRTUAL

AGENDA

Agenda is subject to change. Visit the iacmi.org/winter2021 for more details.

TUESDAY, FEBRUARY 16 Working Group Meetings		
All activity for February 16 will be on Microsoft Teams platform		
All meetings open 10 minutes early and close 10 minutes after to allow attendee networking		
11:00am – 12:00pm	Recycling/Circular Economy Leaders: Soydan Ozcan, ORNL Matt Korey, ORNL Ryan Ginder, University of Tennessee Advisor: Uday Vaidya, IACMI	Microsoft Teams Platform
12:30pm – 1:30pm	High Rate Aerostructures Fabrication Leader: Brian Rice, UDRI Advisor: Dale Brosius, IACMI	Microsoft Teams Platform
2:00pm – 3:00pm	Simulation/Digital Twin Leader: Johnathan Goodsell, Purdue Wenbin Yu, Purdue Advisor: Uday Vaidya, IACMI	Microsoft Teams Platform
3:30pm – 4:30pm	Wind Energy Leaders: Derek Berry, NREL Steve Nolet, TPI Composites Advisor: Dale Brosius, IACMI	Microsoft Teams Platform

	WEDNESDAY, FEBRUARY 17 All activity for February 17 will be on Remo platform	
9:30am – 10:00am	Registration, sign in, breakfast networking	Main meeting room/Remo
10:00am – 10:15am	Welcome and Maximizing Your Member Meeting Experience Dale Brosius, IACMI Mark Morrison, IACMI	Main meeting room/Remo
10:15am – 11:00am	Opening Remarks and IACMI – The State of the Institute John Hopkins, IACMI Remarks: Valri Lightner, Deputy Director, Advanced Manufacturing Office, Office of Energy Efficiency and Renewable Energy Featured Speaker: Dr. Susan Tierney, Senior Advisor for the Analysis Group and former DOE Assistant Secretary for Policy, NAS Committee Member for "Accelerating Decarbonization of the U.S. Energy System"	Main meeting room/Remo
11:00am – 11:30am	Featured Speaker: Dr. Gunnar Merz, CEO, Composites United, "Germany's Industrial Strategy for Lightweighting and a Clean Energy Future"	Main meeting room/Remo

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11:30am – 12:00pm	Composites and Beyond - Training the Advanced Manufacturing Workforce of the Future Joannie Harmon, IACMI	Main meeting room/Remo
Noon – 1:00pm	Lunch and Networking	Main meeting room/Remo
1:00pm – 1:30pm	Featured Speaker: Steve Nolan, Senior Structures Design Engineer, Florida Department of Transportation, "Advancements in FRP Composite Usage for Highway Infrastructure in Florida"	Main meeting room/Remo
1:30pm – 2:30pm	 Project Reports/Presentations Brian Rice, UDRI: Demonstration Projects Summary Eduardo Barocio Vaca, Purdue University: Techmer PM Additive Manufacturing Project Stephen Johnson, UMass Lowell: Application and Demonstration of a New High Fidelity Wind Blade Costing Tool via Four Case Studies 	Main meeting room/Remo
2:30pm – 3:00pm	 Working Group Updates Recycling/Circular Economy: Soydan Ozcan, ORNL High Rate Aerostructures Fabrication: Brian Rice, UDRI Simulation/Digital Twin: Johnathan Goodsell, Purdue Wenbin Yu, Purdue University 	Main meeting room/Remo
3:00pm – 3:45pm	Networking Break	Main meeting room/Remo
3:45pm – 4:15pm	Featured Speaker: John Geriguis, Advanced Development Lead, Joby Aviation "Urban Air Mobility – Economy of Scale"	Main meeting room/Remo
4:15pm – 4:45pm	 Small/Medium Enterprise Presentations: Mito Materials, Kevin Keith Endeavor Composites, Hicham Ghossein Helicoid Industries, Lorenzo Mencattelli Carbon Fiber Recycling, Tim Spahn 	Main meeting room/Remo
4:45pm – 5:00pm	Closing Comments, Virtual Limo to Reception	Main meeting room/Remo
5:00pm – 6:30pm	Networking Reception at IACMI Rooftop	IACMI Rooftop/Remo

	All activity for the Members Meeting on February 18 will be on Remo platform		
9:30am – 10:00am	Registration, sign in, breakfast networking	Main meeting room/Remo	
10:00am – 10:15am	Welcome and Maximizing Your Member Meeting Experience Dale Brosius, IACMI Mark Morrison, IACMI	Main meeting room/Remo	
10:15am – 11:00am	Featured Speaker: Jeff Sloan, Editor-in-Chief, CompositesWorld "Composites markets, materials and processes: Where we are, where we're headed"	Main meeting room/Remo	
11:00am – 11:30am	 Working Group Updates Wind Energy: Derek Berry, NREL Infrastructure and Construction: Joe Fox, FX Consulting Future Mobility/Vehicles Technology: Ray Boeman, MSU 	Main meeting room/Remo	

Questions? Email events@iacmi.org or visit iacmi.org/winter2021



11:30am – Noon	Featured Speaker: Thomas R. Kurfess, Ph.D., P.E. Chief Manufacturing Officer, Oak Ridge National Laboratory "Democratizing Advanced Manufacturing – Ensuring Productivity and Security"	Main meeting room/Remo
Noon – 12:30pm	Featured Speaker: John Hensley, VP Research and Analytics, American Clean Power Association "The Current and Future State of the Clean Energy Market"	Main meeting room/Remo
12:30pm – 1:00pm	Looking ahead: What's Next for IACMI, Closing Remarks Dale Brosius and Uday Vaidya, IACMI	Main meeting room/Remo
1:00pm – 1:45pm	Lunch and Networking	Main meeting room/Remo

	THURSDAY, FEBRUARY 18 Working Group Meetings	
	ring Group Meetings for February 18 will be on Microsoft open 10 minutes early and close 10 minutes after to allo	· · · · · · · · · · · · · · · · · · ·
2:30pm – 3:30pm	Infrastructure and Construction Leaders: John Unser, IACMI Joe Fox, FX Consulting Advisor: Dale Brosius, IACMI	Microsoft Teams Platform
4:00pm – 5:00pm	Future Mobility/Vehicles Technology Leader: Ray Boeman, MSU Advisor: Uday Vaidya, IACMI	Microsoft Teams Platform

Working Group Descriptions

Recycling/Circular Economy | Tuesday, February 16 | 11:00am – 12:00pm

Compared to five years ago, composites recycling technologies have come a long way - but also have a long way to go to achieve full commercial success. At the same time, there is increasing effort to define and achieve a "circular economy," focusing on composites incorporating recycled streams and designed to be recycled. How can we increase confidence in using recycled composites in new components? What testing or standards need to be completed, and how do we measure circularity?

High Rate Aerostructures Fabrication | Tuesday, February 16 | 12:30pm – 1:30pm

The rise of Unmanned Aerial Vehicles and the forthcoming market for Urban Air Mobility, or "flying taxis" requires producing thousands of aircraft per year rather than hundreds. Future single aisle commercial aircraft will only be composite intensive if fabrication times and costs come down. What are the materials and processes likely to prevail for high rate aerostructures? What are the technical challenges that need to be addressed?

Page 3 Last Updated: 2/10/21 6:53 PM

Simulation/Digital Twin | Tuesday, February 16 | 2:00pm - 3:00pm

Increasing computing power is changing the world of design and simulation. It is becoming possible to model materials at multiple scales and associated manufacturing processes to aid in decision making. The ability to create "digital twins" of physical reality points toward integrating such tools into future manufacturing lines using Industry 4.0 technologies and Machine Learning. What demonstrations can help validate this shift? Where can IACMI and industry work together to accelerate this transformation?

Wind Energy | Tuesday, February 16 | 3:30pm – 4:30pm

The wind turbine market is already the largest consumer of composite materials, with significant growth forecast for decades to come. As blades become longer, and therefore more efficient, what technical advancements might allow for field fabrication or assembly? What can be done to avoid landfill for end-of-life blades? What are other challenges that need to be addressed?

Infrastructure and Construction | Thursday, February 18 | 2:30pm – 3:30pm

Composites are well known for corrosion resistance, high specific strength, and low weight, which make them ideal for construction and infrastructure applications. However, market penetration relative to steel and concrete is very low. What technical limitations need to be overcome and what demonstrations and education need to happen to encourage greater adoption?

Future Mobility/Vehicles Technology | Thursday, February 18 | 4:00pm – 5:00pm

The world of ground transportation is being disrupted, driven by the themes of electrification, autonomy, and personal mobility. What role can/should composites play in future vehicles? What technical hurdles need to be overcome? How can we continue to drive down cycle time and cost so composites earn their way onto these changing platforms?



Page 4

Last Updated: 2/10/21 6:53 PM