ICAM2022

ASTM INTERNATIONAL CONFERENCE ON ADDITIVE MANUFACTURING

Research To Application Through Standardization

October 31 – November 4, 2022 | Orlando, FL
JW Marriott Orlando Bonnet Creek Resort & Spa

Submit an Abstract at www.amcoe.org/icam2022

Symposium Organizers

- **Adam Norton,** UMass Lowell, USA
- **Joseph Falco,** NIST, USA
- **Philip Freeman,** Boeing, USA
- **Aaron Prather,** FedEx, USA
- **Mike Bearman,** Vecna Robotics, USA

Robotics, Automation, and Additive Manufacturing

Additive manufacturing (AM) technologies are the latest evolution of the CAD/CAM breakthroughs of the last few decades. They have enabled innovation and speed to market though faster prototyping and optimized part geometries. Combining robotics and automation with AM processes is unlocking new production capabilities and scale. Our challenge now is to bring this technology to the production line increasing production efficiency, reducing cost per part produced, and enhancing safety. This symposium will bring together experts from robotics, automation, and additive manufacturing to talk through these challenges, share new capabilities, and propose strategies to take the next step.

This symposium covers robotics and automation in AM and AM processes via the following topics, but not limited to:

- Robotics-enabled advances to AM processes:
- Multi-Robot-Based AM
- Multi-Directional AM
- Conformal Layer AM
- Assembling Prefabricated Components in AM
- Supportless AM
- Large-scale AM
- Robotics for upstream and downstream manufacturing processes – material handling; post-print finishing; support material removal
- Robotics for automated testing/ inspection for AM parts
- Robotics safety for AM (process versus robotic safety considerations for AM)
- AM prototyping vs. short runs (batch) vs. mass production
- Case studies, challenges, and best practices for AM applications in robotics and automation
- Advances in slicing, path planning, and offline programming for Robotic AM

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Research to Standards
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